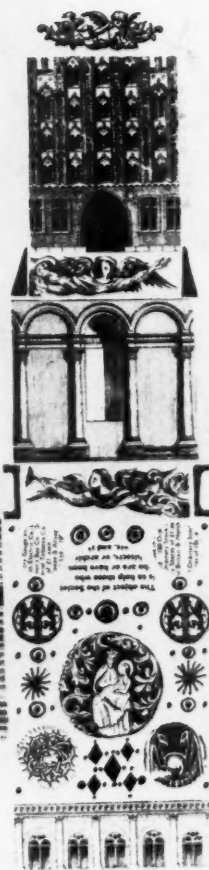


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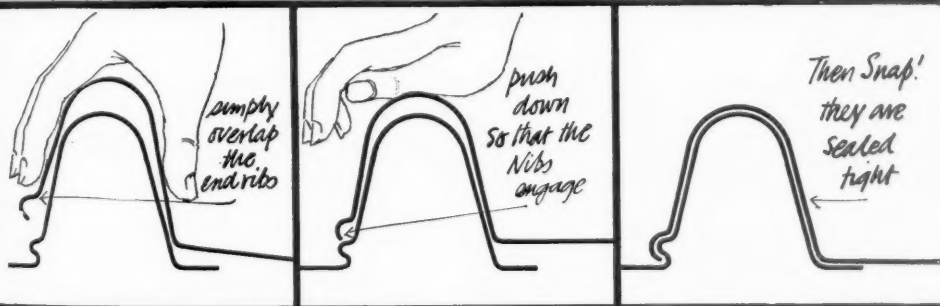
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E.190-191  
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Exhibition  
GROUND FLOOR  
OLYMPIA  
NOV 15-29

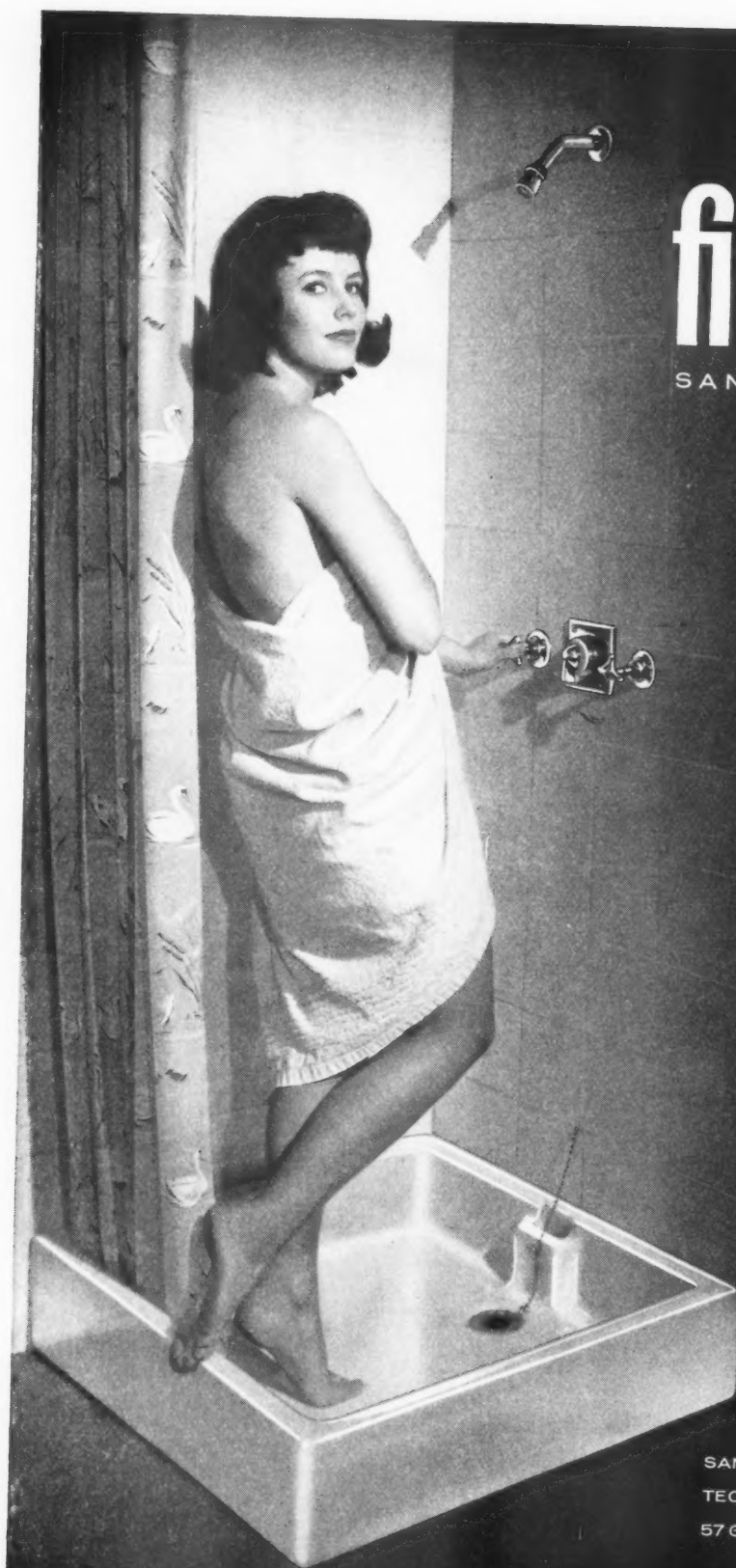
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## SANITATION IN HOTELS AND RESTAURANTS

"Methought a voice within the tavern cried  
 'When all the temple is prepared within  
 Why nods the drowsy worshipper outside?'"

Omar Khayyam: Fitzgerald.

By A. F. B. Noll, A.M.I.San.E., A.M.Inst.W.

In hotels and restaurants generally as well as in those modern temples of health within—the bathrooms and washrooms, five-star amenities are impossible on a one-star budget. Faultless sanitary equipment, therefore, serves the well-being of hotelier and restaurateur equally with that of their patrons. Constant use by a continuous stream of visitors, oft inconsiderate or heavy-handed, demands a very high standard of durability, scrupulous hygiene and a most attractive appearance. Suitably impressed, today's casual hotel visitor may be tomorrow's resident; inadequate attention to comfort and cleanliness in the restaurant erases the memory of good cuisine.

Ceramic Glazed Fireclay Sanitaryware fulfils every demand of arduous duty. The exceptional strength of Fireclay, to which a vitrified glaze is fused, offers the highest resistance to careless or ham-fisted use, the glaze permanently withstanding thermal shock as well as physical strain. The minimum of easy cleaning quickly restores the original porcelain-like lustre. The elegant modern design of Fireclay appliances avoids dust and germ traps, blending aesthetic appeal with impeccable hygienic condition. A wealth of colour choice affords harmony with any and every decorative scheme.

Modern Hotel and Restaurant plans should embody the principle that comfort and health are indivisible; the protection of health demands sanitary appliances of the highest order. No longer is "h. and c. in every room" something to boast about. The aim should be a private bathroom to every bedroom, containing ideally, a bath, washbasin, w.c. suite and bidet. Shower cubicles with Glazed Fireclay receivers however, save space and conserve capital. In public washrooms the durability of Fireclay washbasins is particularly desirable, while large sized basins minimise external splashing. The clean-lined hygienic qualities of Glazed Fireclay are particularly suitable for urinal ranges where integral cisterns and buried pipework obviate metal polish and rag—and the risk of eyesores; Fireclay corbel-type w.c. pans facilitate cleaning even further.

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A fully illustrated booklet, published in the interest of more and better hygiene and sanitation is available on request

See the exhibits at the Building Centres,  
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*With acknowledgements to the B.B.C.*

Ask any architect—he will tell you that today linoleum is one of the most versatile weapons in his creative armoury. Its applications are so wide. It expresses brilliantly the mood of any decorative theme—contemporary or period. And a constant flow of new colours and styles gives scope for endless variety of 'personalised' and novel designs. In other ways, too, linoleum belongs to modern living. It is so easy to care for—so quick to clean. It is quiet to the tread and no flooring equals linoleum for long wear . . . Always plan for linoleum. *Illustrated left: the B.B.C. Television Centre at White City makes extensive use of today's finest flooring—linoleum.*

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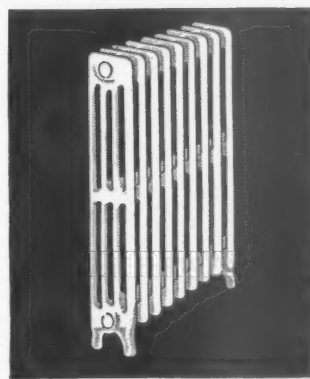
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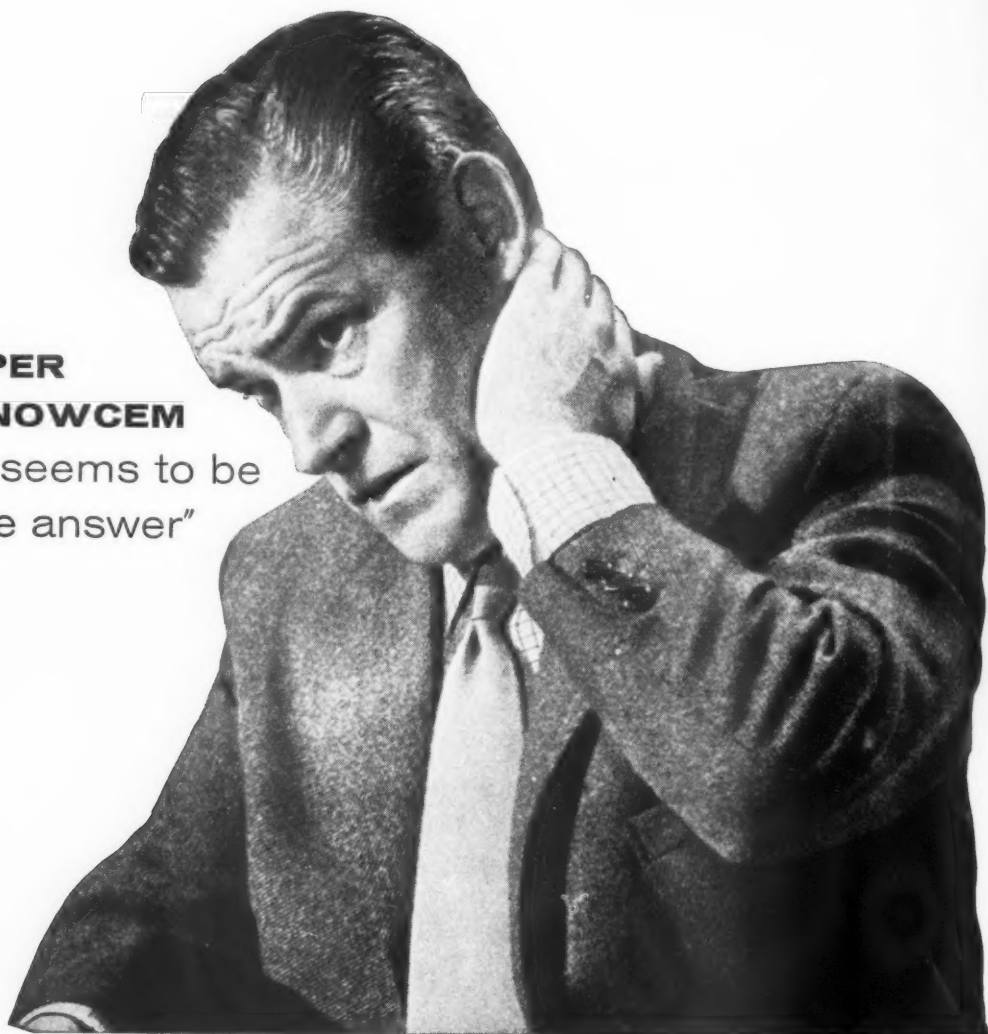
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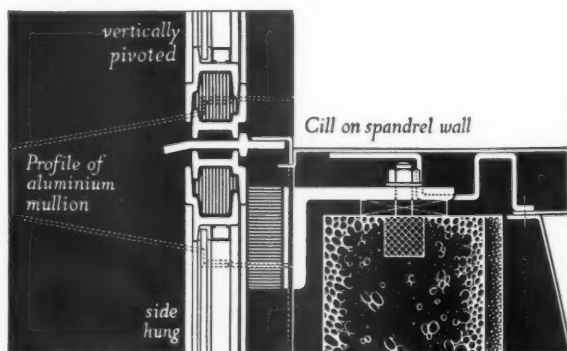
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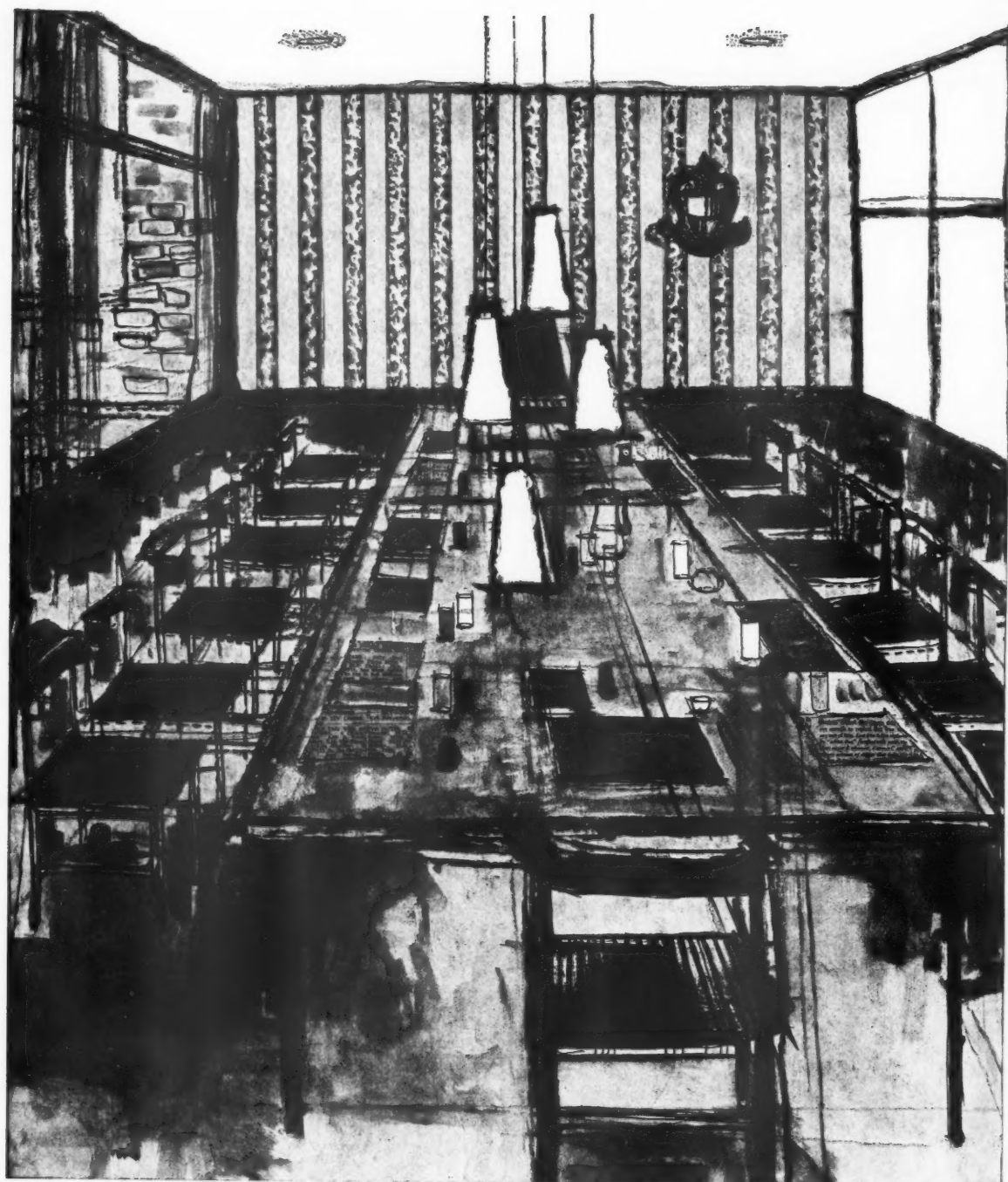
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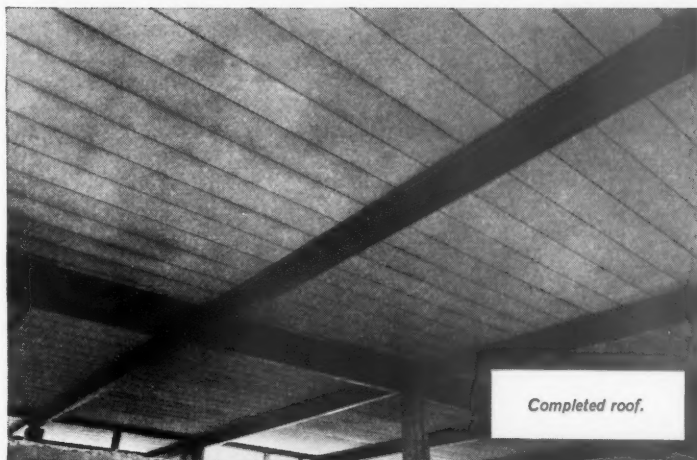
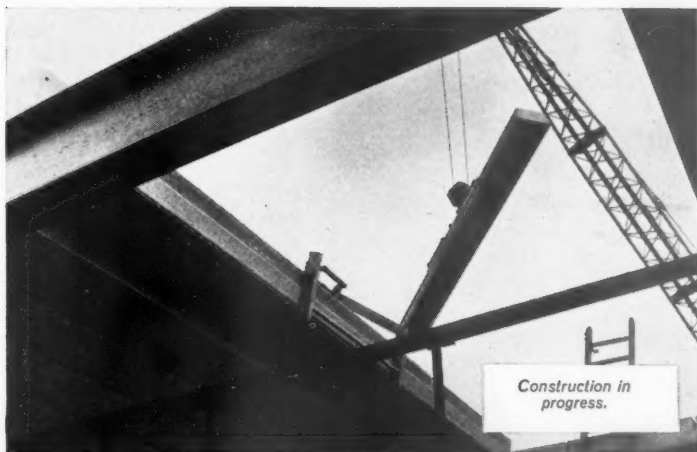
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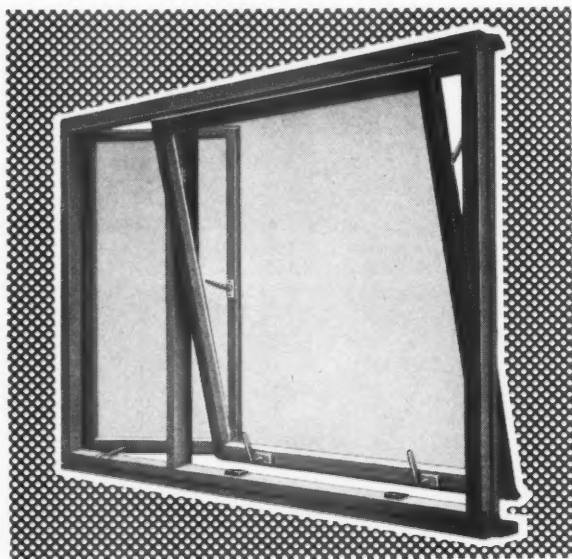


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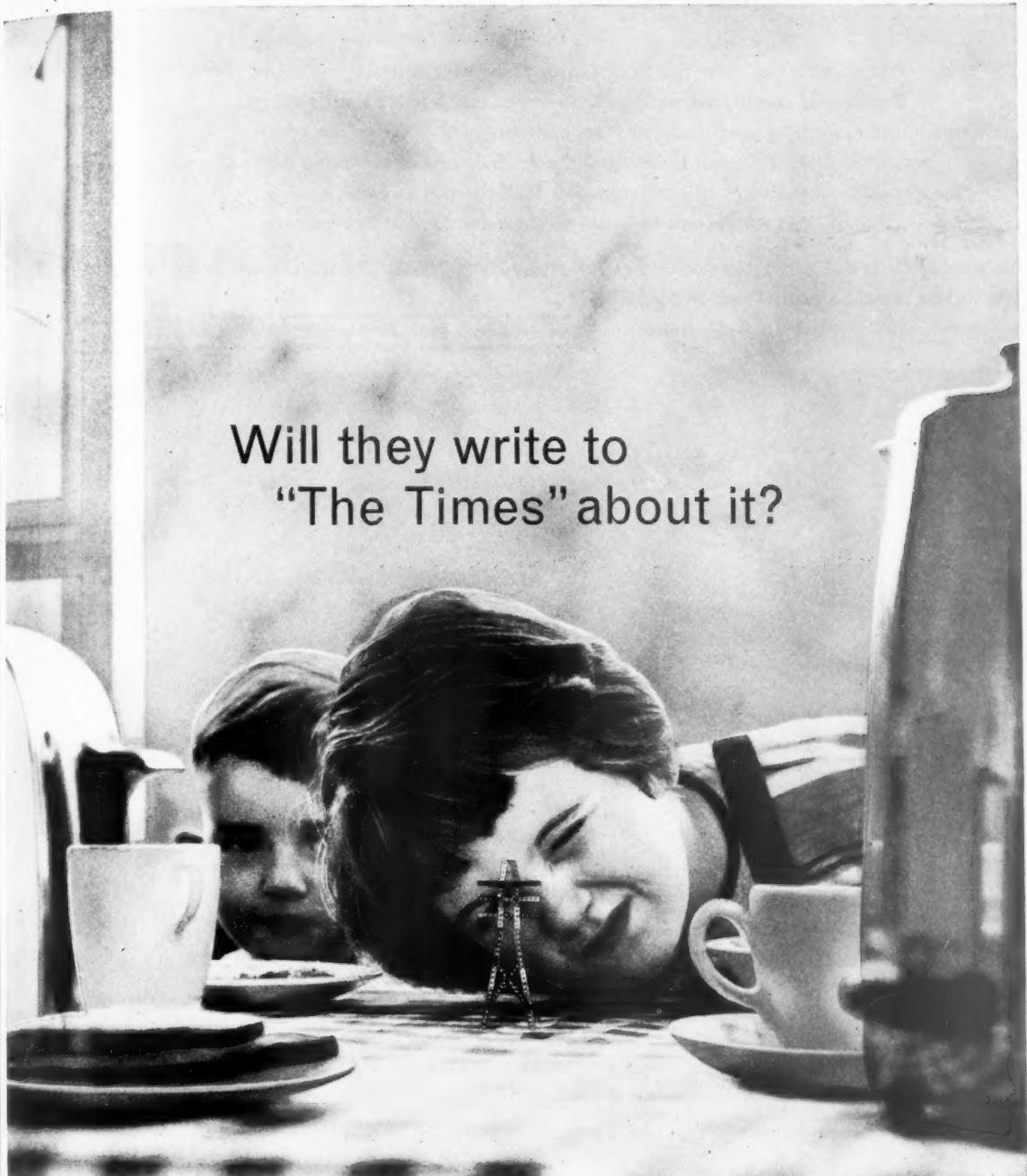
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H-W.118





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*Designed by D. E. E. Gibson, Director-General of Works, War Office; in association with Robert Matthew and Johnson-Marshall.*

Photo: By courtesy of Architects Journal

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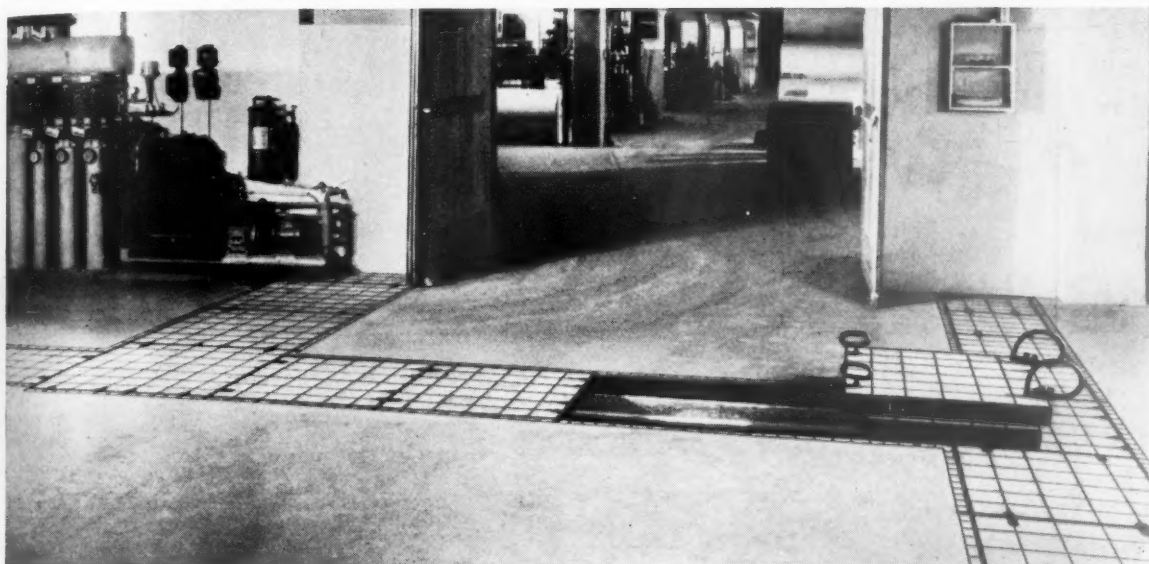


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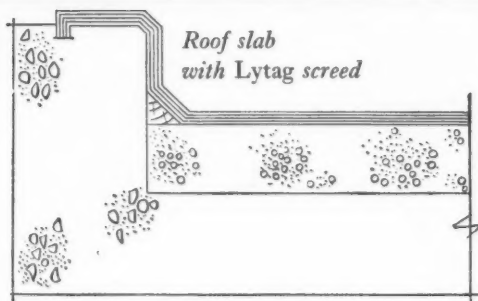


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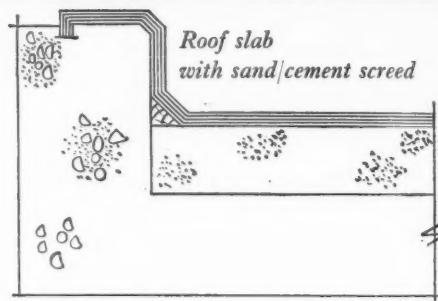
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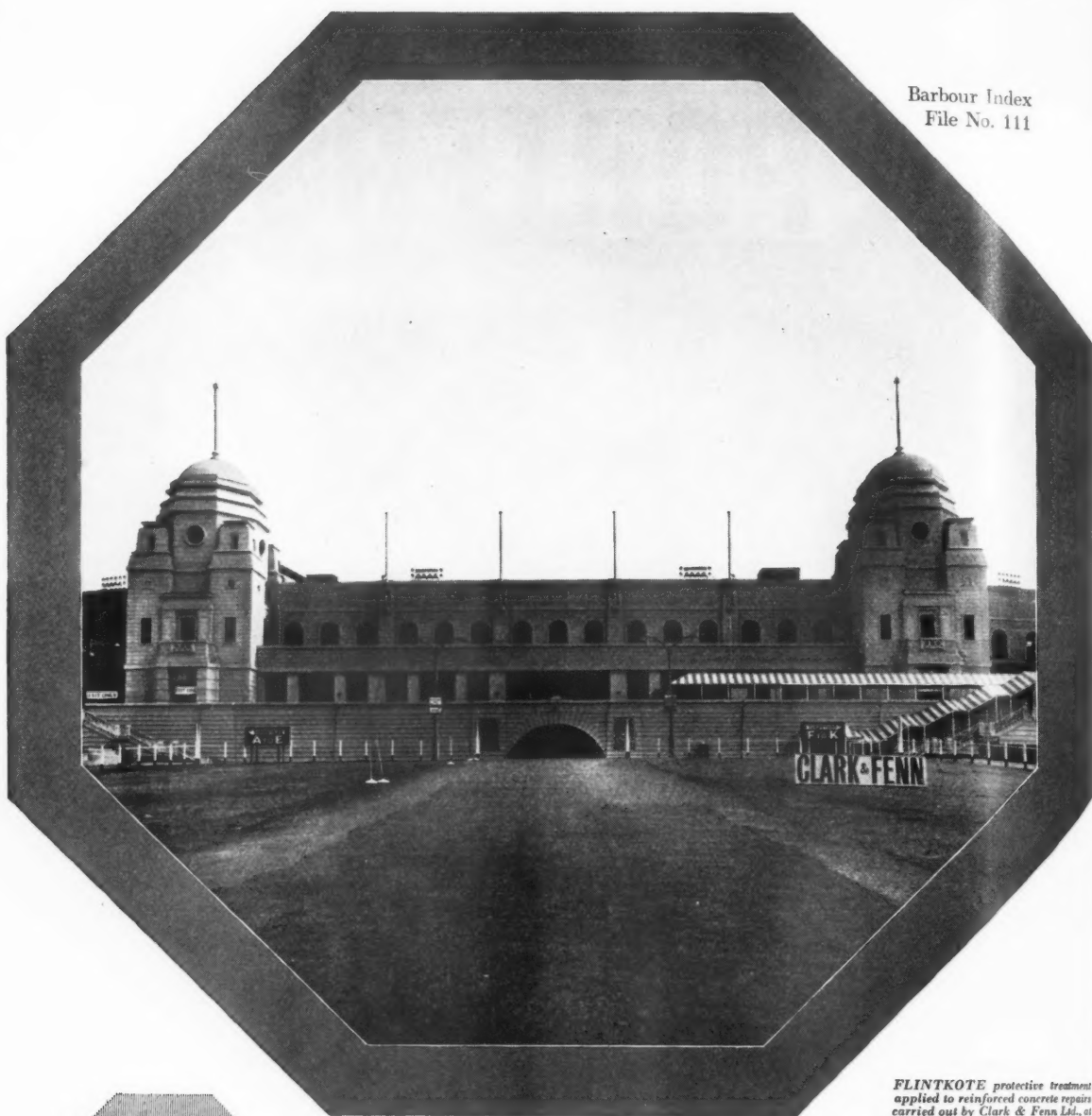


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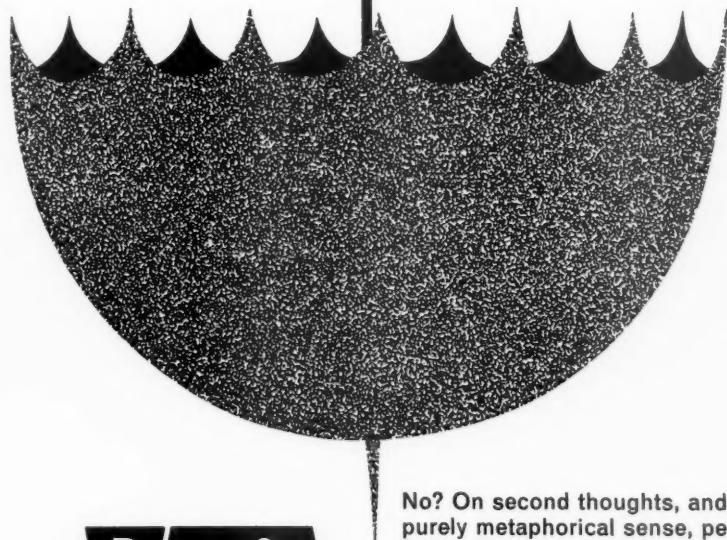


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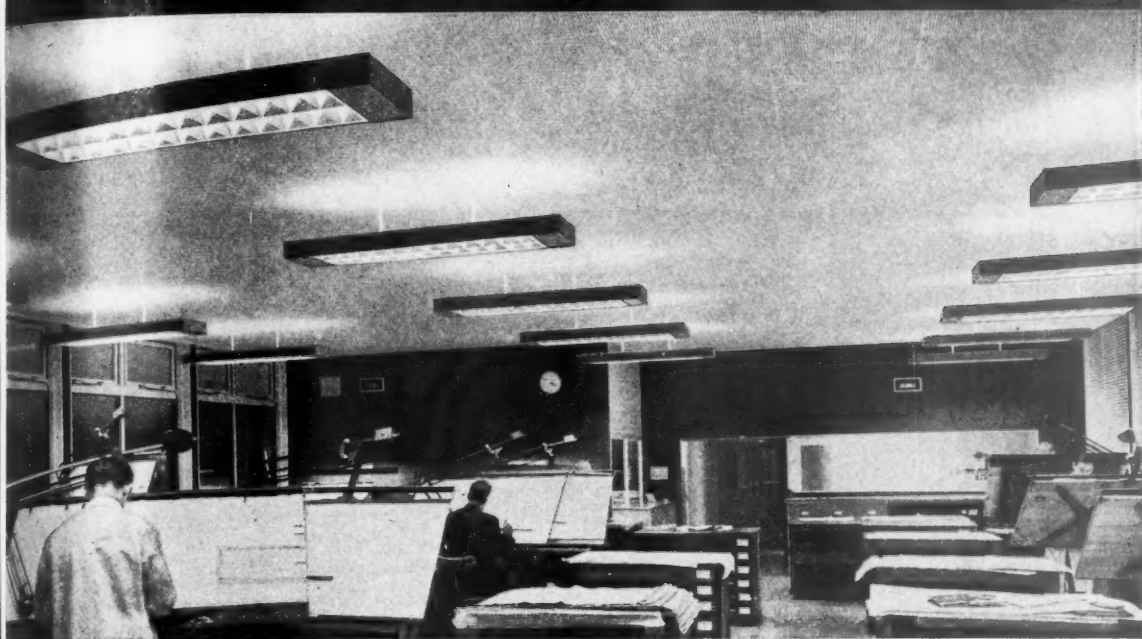
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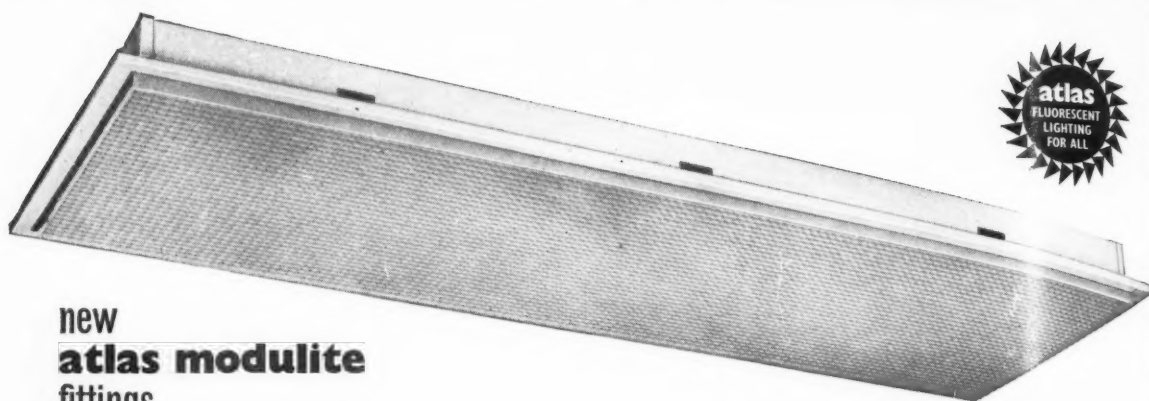
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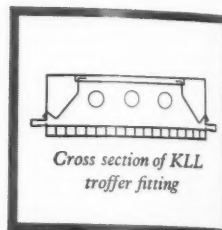
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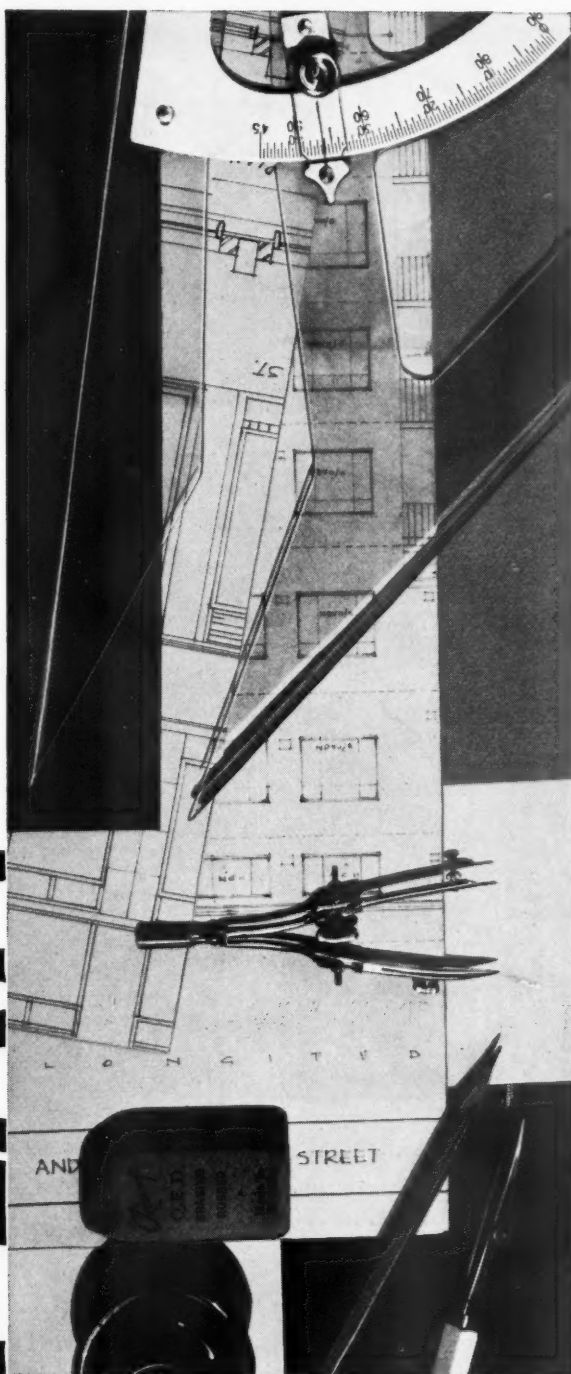
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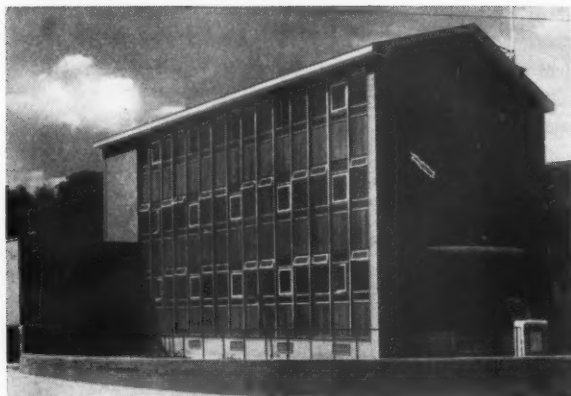


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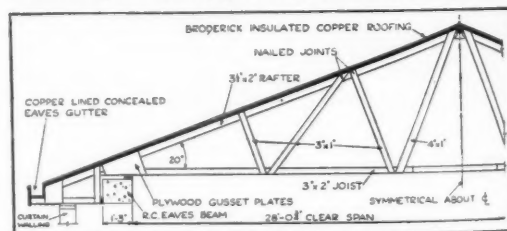
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# The Journal of the Royal Institute of British Architects

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November 1961

Third Series Volume 68 No. 13

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## Diary of Events

13 November, 6 pm	Library Group. S. Rowland Pierce, FSA [F], Chairman of the Library Group, will give a talk on 'Some Early RIBA Travellers: 1835-45 (Scoles, Allom, Catherwood, Clerihew, etc.)'.
15, 22 and 29 November, 6 pm	Series of three lectures: 'Modern Architecture: Yesterday, Today and Tomorrow' by R. Furneaux Jordan [A].
23 November, 6.15 pm	'A Critical View of the Building Industry' by Ian M. Leslie, OBE [Hon. A].
28 November, 6 pm	Special General Meeting. 'New Town Development: The Hook Study' by Oliver J. Cox [A], Graeme Shankland, MA, AADIPL. [A], and F. G. West [F].
7-10 December	Institution of Highway Engineers' Exhibition, in conjunction with the Cement and Concrete Association: 'Multi-Level Intersections'.
12 December, 6 pm	'Professional Responsibility' by J. P. Eddy, QC.



Cover picture

One of this year's *ABS Christmas Cards* designed by David Rock [A]. See page 500.

Journal Volumes. At the Annual General Meeting it was suggested that JOURNAL volumes should run from January instead of November. In order that this can be done the November and December issues will be included in Volume 68 as numbers 13 and 14.



# Integrated Design of Architectural and Engineering Services

There is no leading article this month; in its place a summary is given of a paper read by Mr Alex Gordon [4] at the recent International Heating and Ventilating Conference to the group which discussed 'integrated design of architectural and engineering services for economy of building construction and operation'. Mr Gordon is a member of the RIBA's Management Committee which is concerned with the liaison between architects and consultants in the professional design team.

Mr Gordon, summarising the paper, said that although some architects were only able or only prepared to work in a manner appropriate to the present time, many others were giving serious thought to today's problems and were trying to adjust themselves and their performance accordingly.

The emphasis in the papers given at the Conference was on the necessary principle of Design Team working. Even where there was a will to operate Design Team working effectively it was not easy at present because there was generally insufficient mutual appreciation of the contribution of each specialist, doubt about the optimum degree of overlap and lack of experience in integrated – as opposed to isolated – design. In Mr Gordon's view many of these difficulties stemmed from the fact that each one of the members of the design team were trained in isolation and at present there appeared to be in each specialised educational pattern very little provision for training in Design Team working, in learning respect for the contribution of colleagues and in extending interest to the whole of a building and not merely a specialised section of it.

He put forward the following points as being readily accepted as fact:

1. The increasing complexity of building design and construction.
2. The architect's need for specialist help.
3. The increasing proportion of the heating and ventilating engineer's contribution in terms of the value of a building.
4. The importance for tidiness and economy of integrating mechanical systems with the structure and overall design.

There were three different directions in which the architect had gone in the face of the complexity of modern building. These were: (1) to neglect integrated design; (2) to delegate the responsibility for the complex sections to specialist contractors; or (3) to co-ordinate a team of independent specialists to achieve integrated architectural and engineering design. The first of these was unsatisfactory, the second had become prevalent for reasons he would give; and only the third was really satisfactory and he would attempt to outline what changes were necessary to achieve it.

To obtain the best buildings – that is buildings which looked well, served human needs well and were constructed at the right price and in a satisfactory time – it was fundamental that the design should be developed through a gradual integration of the contributions of the various specialists, e.g. structural, heating and ventilating, electrical, etc.

The days had gone, or should have gone, when the architect could design his building and pass the drawings to the structural engineer to make it stand up and to the heating engineer to arrange for it to be heated. What did this gradual integration of contributions involve?

It involved consultancy as opposed to isolated specialist technical ability. It involved the architect being interested in the heating and ventilating engineer's contribution; but equally that the latter should be as interested in the rest of the building as in his own system. This need not involve treading on anyone's toes: the architect needed help from his engineer colleagues and knew it. A long time ago, said Mr Gordon, Corbusier had seen the roles of architect and

engineer as complementary to each other, calling for a sustained and fruitful association in which each speaks as equal, with equal responsibility and prestige. He wrote 'nothing can now be conducted without this patient and profitable understanding between engineer and architect, each knows his place, each recognising his duties and his rights'.

It was regrettable that this sustained and fruitful association did not always exist. There were many buildings which showed evidence of its absence – that is, they showed evidence of different standards in the service installations and the rest of the building. An uneven spread of expenditure and a lack of sympathy between the installations and the structure. Indeed, the close liaison and effective co-operation in the design stages necessary to achieve full integration in design was not readily found in this country because the architectural and engineering professions were hardly integrated at all.

Before looking for a solution to this problem in terms of education, it was advisable to examine the existing conditions which had developed naturally over the years and which had become deep rooted in some cases.

Briefly, the process appeared to be one of fission with specialist sections developing within groups and then ultimately breaking away as it became clear that there was sufficient work for the development of a particular service in which individuals would devote their lives to one branch of the overall building design operation. First we saw the quantity surveyors separating from the architect; later the structural engineers from the civils, and now the heating and ventilation engineers from the mechanicals.

It seemed, however, that we had reached only an interim stage in the development of the design team, but already certain inconsistencies and illogicalities had crept in, for example:

- (a) The proven Bill of Quantities did not generally apply to the whole of the building, or, if it did, the QS did not prepare the bills.
- (b) Prices for sections of a building were generally obtained on outline drawings and specifications only and might not be fully detailed when the main contract was let.
- (c) A proportion of the design was often entrusted to specialist contractors rather than to independent consultants.

Once practices which on reflection were seen to be at variance with what was best had crept in, it was extremely difficult to get back on to the 'right track', for not only did vested interests develop, but specialists seeing only their limited section of the whole tended to lose sight of the overall picture, and be self-righteous about what they were doing although that might not be in the best interest of the building owner.

Mr Gordon endorsed the views of speakers from America and the Continent that in all sections of building design the independent consultant had advantages to offer and that there were definite disadvantages in delegating design to contractors. Only the independent consultant could draw on the best from all sources and at the same time contribute to the progressive development of the whole design in conjunction with the other members of the design team.



That the good consultants did not exist in large number, unfortunately, could be attributed to a number of factors:

- (1) There was no specific training to produce them, and they only developed to meet the need on a trial and error basis.
- (2) The architectural profession had been slow to lay down precisely the service it required.
- (3) The particular fee structure of the RIBA encouraged the architectural profession in allowing the specialist work to be done by contractors, many of whom offered a service of high standard.

The fee structures of a number of the professional institutions, said Mr Gordon, were not conducive to the best subdivision of responsibilities within the team, and the development in this country of an association or joint consultative committee representing the whole of the design team would contribute much towards better and cheaper building by providing machinery for discussion on problems of mutual interest, such as fee structure and education.

It would not be easy to achieve educational reform, particularly where more than one professional body was concerned, but if once the fee problems were sorted out by a joint organisation, and if architects declared that it was their policy to work with independent consultants, defining clearly what was required of them, then more consultants of the right type would develop and some form of integrated training would follow.

In order to be clear as to the educational overlap that would be desirable it was necessary to be clear as to the overlap of interest and responsibility necessary during the design process. In addition to his own expertise each individual member of the design team needed to have:

- (a) an understanding of the design process;
- (b) a general sympathy for the contributions of his colleagues;
- (c) a sufficient knowledge of the other specialist work to achieve the best results from collaboration but not so much that there was a danger of duplication or distraction;
- (d) an understanding of and experience in consultancy and effective communications.

The process of feeding in and out information throughout the development of a design, which was true consultancy, depended for success on satisfactory communications.

The architect, however, found himself at a disadvantage in discussing technical problems with his collaborating engineers for a lack of a common language. It was doubtful if architects, structural, electrical, heating and ventilating engineers and quantity surveyors would ever achieve the right degree of understanding until they all met together during their student days in the same relationship in which they would eventually work. What seemed to be necessary was separate parallel courses each including special lectures prepared for one group of specialists on another's subject coupled in later years by joint project work.

Such integrated training might take a long time to achieve, but it was surely unwise that in 1961 the education of each section of the design team should be completely isolated from the others, and something should be done to rectify this quickly.

A joint consultative committee for architects, consulting engineers and quantity surveyors could be brought into being comparatively easily, and as an interim measure such a body could perhaps set up centres throughout the country for residential gatherings of senior students in training for their specialist qualifications. Meeting together for perhaps a month to work on joint projects, they would have an opportunity to learn a common language and develop improved communication methods.

This would, Mr Gordon felt sure, lead in the future to the development of more closely knit design teams, which in turn would lead to better and more economical buildings.

## Council Business

The Council met on 3 October with the President, Sir William Holford, in the Chair.

### Secretary's Report

The Secretary reported briefly on the informal Conference on Education Overseas held last August at the RIBA under the Chairmanship of Mr E. Maxwell Fry, Vice-President.

**Revision of Bye-laws.** The Secretary said that at their meeting in July, the Council approved for submission to the necessary General Meetings further revised wording of Bye-laws 56, 59 and 60. Arrangements have been made for General Meetings on 7 and 28 November to approve and confirm these Bye-laws so that they can be submitted to and approved by the Privy Council in time for the new constitution to become operative at the next RIBA election.

Early in August, the Clerk to the Privy Council wrote in regard to the Bye-laws as a whole. He said that the Privy Council would approve them only on the understanding that during the next three years (the transitional period for the new constitution) the Institute would carry out a systematic and thorough overhaul of the existing Royal Charter and Bye-laws. The Institute is then to come back to the Privy Council with a draft of a consolidating Royal Charter and a new set of Bye-laws. The object is to remove present inconsistencies between Charters and Bye-laws and also to define and authorise (or restrict) the Institute's present-day activities.

In addition to these general observations, criticism in detail was made on the following points:

**Bye-law 16:** (a) The Privy Council will ultimately require Bye-law 16 to limit the RIBA Council's power of fixing membership subscription, either by requiring confirmation from a General Meeting or by setting a limit to the increase that can be made. They have, however, agreed to leave the Bye-law unchanged for a three-year period.

**Bye-law 35:** (b) In dealing with the retirement and replacement of members of Council no provision has been made for the removal of a member of Council on the lines provided in the Companies' Act 1948, Section 184. The Privy Council requires such provisions to be made at once, and these have now been drafted as Bye-law 36 (B).

**Bye-laws 42 and 58:** In conformity with the Companies' Act 1948, the Privy Council require a minimum of twenty-one days instead of fourteen between the issue of the Annual Report and the Annual General Meeting.

**Bye-law 43:** (d) The Privy Council have put forward for acceptance an alternative draft on the investment of ordinary funds to conform to the Trustee Investments Act 1961. It in fact gives more latitude than the existing Bye-law.

**Bye-law 47:** The Privy Council require the Bye-law to specify the qualifications required for the Institute's accountants in conformity with the Companies' Act 1948.

These further amendments have to be put to the General and Confirmatory Meetings for acceptance, and then returned to the Privy Council, who will not gazette the new Bye-laws until all outstanding points have been cleared up. If the new Council constitution is to start in 1962, these further amendments must be cleared by the General Meetings during November 1961.

The President therefore approved of new drafts of Bye-laws 42, 43, 47, 58, and the new Bye-law 36 (B) as required, being published in the October JOURNAL, pages 461-62.

Proposals for a committee to work upon a revision of the Royal Charter and the Bye-laws, as required by the Privy Council, will be submitted to the Council within the next few months.

**Bronze Medal Award.** The Secretary reported that the jury entrusted with the award of the RIBA Architecture Bronze Medal in the area of the Northern Architectural Association for the three-year period ending 31 December 1960, had made



it in favour of Hillsview Primary School, Carsdale Road, Kenton, Newcastle upon Tyne. Architects: Frank Fielden, MA [F], and Harold Wharfe, MA [F].

### Routine Business

**The Services of an Architect.** The Secretary recalled the decision of the Council last June to accept an offer by Hodders to publish *The Services of an Architect*, a paper-back somewhat on the lines of *The Services of a Solicitor*. The Council agreed to leave to the President's discretion, in consultation with the Chairman of the Public Relations Committee, the appointment of a small group to deal with the selection and briefing of the author and approval of the text of this booklet.

**The Singapore Institute of Architects.** At the meeting of the Council held on 9 May, it was reported that the prolonged negotiations between the Institute of Architects of Malaya and the Society of Malayan Architects had been successfully concluded and an amalgamation had taken place to form the Singapore Institute of Architects. The rules of the Institute were being discussed preparatory to the RIBA receiving an application for alliance.

The rules have now been approved as being in order and the Singapore Institute has submitted an application under Bye-law 69 for admission as an allied society.

The President is Mr E. J. Seow [F]; the Vice-President is Mr K. C. Chung [A], who recently attended the informal Conference on Education, and discussed other constitutional matters with the Secretary; and the Hon. Secretary is Mr

A. H. K. Wong [A]. The membership totals about 60, of whom 50 are members of the RIBA.

Accordingly the Council formally approved the rules, and approved the admission of the Singapore Institute of Architects as an allied society.

### Other Points from the Agenda

**RIBA Public Relations.** The Council debated a paper from the Public Relations Committee, extracts from which are given on page 511.

**Architectural Competitions.** An interim report from the Competitions Committee was debated at some length, and the recommendation that the Committee should revise the Regulations Governing the Promotion and Conduct of Architectural Competitions and the Direction to Assessors and submit proposals to the Council at a later date, was approved.

**BASA.** On a motion by Mr Thurston Williams 'That members of the Council be appointed to meet representatives of the British Architectural Students' Association for discussions on the future co-operation between the Institute and the Students' Association and to report back to Council with any recommendations, at its December meeting', it was agreed to have joint talks. Mr Henry Swain [A], Mr Thurston Williams [A] and the Chairman or Vice-Chairman of the Board of Architectural Education were appointed to represent the Institute.

## RIBA Topics

### Professional Responsibility

Recent correspondence between members and the Practice Department (some of which has appeared in the RIBA JOURNAL) indicates that there is a grave lack of appreciation in the profession, particularly on the part of younger members, of the full extent of an architect's responsibility to his client. This lack of appreciation is apparent also in the increasing numbers of claims for negligence which are being brought against architects by their clients and others, and which in turn is reflected in the increase in the premiums at which professional indemnity insurance policies are available.

The Practice Committee have already given thorough consideration to the question of insurance policies and will shortly make an announcement on this subject.

With regard to the question of the architect's own appreciation of his professional responsibilities, the Practice Committee have arranged a lecture on the subject which will be given by Mr J. P. Eddy, QC, on Tuesday 12 December 1961 at 6 pm. The lecture will take place at 66 Portland Place, London, W1. It is hoped that as many members as possible will attend this lecture as it is very much in their own interests that they should realise the full extent of their obligations, legal or otherwise, towards their clients.

### Housing Group Competition

Interest in the Housing Group Design Competition announced in the September JOURNAL has been much greater than either of its joint sponsors, the Royal Institute of British Architects or *Ideal Home Magazine*, expected.

So many applications for conditions and entry forms were received from architects that the initial print was exhausted within a few days, and a further printing was ordered. Some 400 applications had been received altogether by the end of September, a remarkably high figure for a competition involving the design of several types of dwelling and planning the lay-out of one or both 4½-acre sites.

Two first premiums of £1,000, which are additional to the RIBA scale fees payable to the winning architects when the sites at Harlow and Stockport are developed, are no doubt an attraction. An equally great, if not greater incentive, is the opportunity of making an imaginative yet practical contribution towards solving a housing problem created by the scarcity and high cost of land for building.

The last date for submitting designs is 2 January 1962 and they will be assessed by Sir Basil Spence [*Past President*] Mr Donald Gibson [F] and Mr G. Grenfell Baines [F]. Conditions are obtainable from *Ideal Home Magazine*, Design Competition Office, 5th Floor, 96 Long Acre, London, WC2.

### Junior Liaison Committee of Architects, Quantity Surveyors and Builders

The programme of meetings for the Session 1961-62, following up the conference at Cambridge, which is reported elsewhere in this issue, is as follows:

- |             |  |
|-------------|--|
| 23 November | A Critical Review of the Building Industry by Ian Leslie, OBE [ <i>Hon. A.</i> ] |
| 10 January  | Integration within the Building Industry - speakers to be announced.             |
| 22 March    | The National Economy and the Building Industry by Peter Trench, OBE, FIOB.       |
| 12 April    | Communication within the Building Industry - speakers to be announced.           |

All meetings will be at the RIBA at 6.15 pm.

Details of these meetings and other activities of the Junior Liaison Committee will be sent in particular to those members who attended the Cambridge Conference and to all members with addresses in the London area who have qualified in the last five years.

Any other members who would like to be put on to the mailing list are asked to apply to the Secretary, RIBA.



### New Town Development: The Hook Study

The Design and Planning Committee have arranged a meeting on the plans drawn up by the LCC Architect's Department for the proposed new town at Hook.

The speakers will be Mr Oliver J. Cox [A], Mr Graeme Shankland, MA, AADPL [A], and Mr F. G. West [F]. The meeting will be held in the Jarvis Hall at 6 pm on 28 November. The usual refreshments will be available from 5.30 pm.

### Do you play Rugger?

A team representing the Royal Institution of Chartered Surveyors plays several games each season against other bodies, and wishes to add the RIBA to their fixture list. The team for these occasional matches is raised from among those younger RICS members who turn out regularly for their clubs.

A number of architects are known to play first-class rugger, and if one of them is willing to take on the job of getting an RIBA fifteen together will he please get in touch with Mr John Hosking, LLB, ARICS, at 1 New Court, Lincoln's Inn, London, WC2, who will give all the necessary information.

In the meantime if any members or students RIBA who would be willing to play if called upon will send their names, addresses, clubs, and positions on the field, to the Editor of the JOURNAL, this information will be passed on to the organiser when he is known.

Some time back a similar appeal was made for a soccer team to play the RICS. The match is taking place on 8 November at the SW Essex Technical College, Chigwell, and the result should appear in the December JOURNAL.

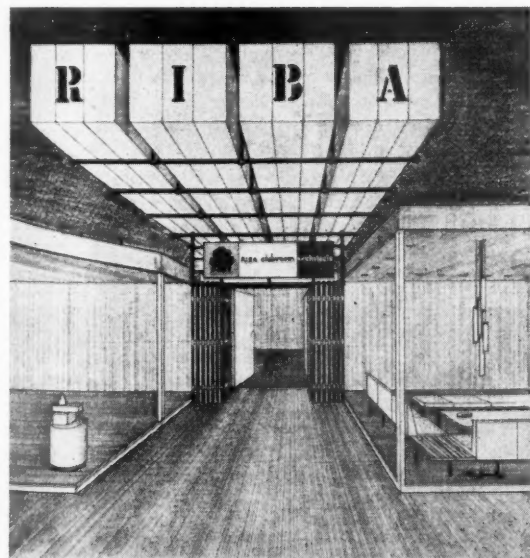
### The Building Exhibition

Admission tickets for the Building Exhibition are included with this issue, and also through the usual generosity of Mrs M. A. Montgomery [Hon. A] each ticket will serve as a voucher for two free teas served in the RIBA Club Room over the Addison Road entrance to Olympia.

Will members make a point of using these particular tickets to get in, as by doing so the ABS receive 2s. 6d. from each one presented at the turnstiles.

Unfortunately for the ABS many architects forget this at the entrance, but this year please do try to remember.

If the profession would relieve its own benevolent society



The RIBA Clubroom at this year's Building Exhibition has been designed by Mr Roger Worboys, MA [A]

of impecuniousness by more direct forms of contribution, it would not be necessary to stress the importance of taking advantage of Mrs Montgomery's generosity. But as it is, the ABS stands to gain a substantial sum if the tickets are used and the opportunity arises only once in two years.

### The Sir Banister Fletcher Library: Late Night Opening

It has been decided that the Library shall remain open until 8.30 pm every Tuesday, with effect from the 2 January 1962. This arrangement is experimental, and should not yet be regarded as permanent. It will continue, if the response by members is sufficiently encouraging.

### The Drawing Society of America

The activities of the Drawing Society Inc. of America are attracting considerable attention. It ought to be better known here, if only to encourage the founding of a similar society with equivalent aims. The objectives of the Drawing Society are, in the words of the Report of 11 October 1960:

To serve as an information centre for all drawing activities.

To sponsor and organise lectures and seminars on the history and technique of drawing.

To sponsor and organise national and international exhibitions of all types of drawing.

To publish a journal of drawing which will reproduce drawings and include critical articles.

To donate drawings to museums.

The national foundation of art collectors, artists and museum curators (23 major museums are represented) has Mr James Biddle, Head of the American Wing at the Metropolitan Museum of Art, as its first President. The National Committee includes directors and curators from a nation wide network of museums, with the RIBA as its first European representative. Already a six-year programme has been organised and will cover exhibitions, the publication of books on leading American draughtsmen, and gifts to American museums. Among the aims it is hoped to inspire the public to an interest in the art of drawing and to encourage a high standard of draughtsmanship among designers and architects. The first scheme for a public exhibition will be part of a theme, 'The Uses of Drawing', and the first exhibition will be 'Drawing for Painting and Sculpture'. This will circulate the United States. The Society has made grants to the Metropolitan Museum of Art, the Addison Gallery, the Detroit Institute of Arts, the Houston Museum, the Los Angeles Country Museum, and the City Art Museum of Saint Louis. Yale University Press are producing the first publication of the Society, on the drawings of Edwin Dickenson.

The remarkable initial success of the Society is a good augury in its attempt to act as a focal point for drawing activities in the United States. There has been an urgent need for a publication to stimulate interest in drawings, particularly in the fields of architecture and the theatre. The Society is anxious - quite rightly - to emphasise the importance of the uses of drawing - an appropriate gesture when modern architectural draughtsmanship is at a low ebb. What the Society will achieve for the old master drawings is still a future issue. If it can emulate the now defunct English publication, *Old Master Drawings* - a remarkable source for the dissemination of scholarly articles on the subject - it will provide a need for scholars and collectors alike.

Appropriately the RIBA has a travelling exhibition of its drawings at this moment in the United States. If the Society can bring to England some of the treasures from American drawing collections it will do much to stimulate interest in a little known field as well as being good for Anglo-American public relations.

JOHN HARRIS  
MEMBER OF THE NATIONAL COMMITTEE



# Presentation of the TPI Gold Medal to Sir William Holford



At a ceremony in Carpenter's Hall on 4 October the Gold Medal of the Town Planning Institute was presented to Sir William Holford, MA, DCL, PRIBA, PPTPI, Professor of Town Planning in the University of London, by Mr Rowland Nicholas, CBE, President of the Institute.

Eulogies, notably gracious and sincere in their manner, were read by Mr Desmond Heap, PPTPI, Professor J. S. Allen, PPTPI [F], and Mr L. W. Lane, member of the Council of the TPI. Mr Heap said that Sir William's work was already well known and respected throughout the world, from Canberra and Perth in Australia, via Pretoria, Toronto, Sheffield, Exeter, Oxford, Cambridge, Eton, Team Valley, Maidstone, Corby, and many other places. 'We are indeed fortunate to catch him here in London this evening on one of his visits to this county.'

'In Holford we have before us a firm amalgam of all the good things - an attractive embodiment of the whole man... of whom the middle years continue to treat so gently that he can still display the "slender campanile silhouette" of early years - a silhouette whose plot ratio shows no sign of settling down or spreading out.'

'I make bold to say that perhaps his greatest service to the cause of town planning is that he has done as much as any man I know to humanise his subject - for he is a man of much humanity, much kindness, and great patience and courtesy when dealing with those who know less about this difficult subject than he does. His entire manner and approach are nicely calculated to bridge the gap which is ever inclined to separate the planner from the planned.'

Professor Allen said he first met Sir William when he joined the Liverpool School of Architecture as a young lecturer.

'At an early age he became an acknowledged leader of the professions of Town Planning and Architecture in this country, and honours in recognition of this descended on him.'

'Sir William is blessed with a combination of qualities which must surely be rare in any profession: a clear, analytical

mind, a gift of expression in lucid and limpid English, the ability to construct ideas from apparent confusion of conflicting facts, calmness of mien, the skill of an advocate and the wisdom of a judge, the wit of an 18th-century clubman, the diplomatic skill of an ambassador, combined with a genuine kindness which stands out even in so friendly a profession as ours.

'His career is too well known to need further listing of his achievements. But whether organising wartime building work, holding high posts in the young Ministry, or in a long career in the academic field, he has always given distinction to everything with which he has been concerned.'

Mr Lane also paid an eloquent tribute to Sir William as a town planner and referred to the happy relations between the LCC, where he is Senior Planning Officer, and London University.

Sir William Holford in his address said, after thanking the President of the Town Planning Institute and those who had paid tributes, that he wanted to pursue the subject of personality and anonymity in town planning because it had a great deal to do with the immense problems that faced us in the conservation of our natural resources and the redevelopment of our cities.

'I shall take a text from the most recent book of your last Gold Medallist, Lewis Mumford - *The City in History*. This is a long book; and as Robert Furneaux Jordan said in last Sunday's *Observer*, a wordy one. (The same thing could be said of The Psalms.) It is certainly not an easy work to read from cover to cover, as I know, having done so. But I think Mumford's words mean something.

'Here is Mumford describing the city in its early days:

"Until this moment the human character had been moulded by the local group and had no other identity or individuality. But in the city, under the institution of Kingship, personality itself first emerged: self-directed, self-governing, self-centred, claiming for the single magnified 'I', as divine representative of the larger collectivity, all that had once belonged to the now diminished 'Us'."

'He then quotes the Chinese philosopher, Mencius:

"When men are subdued by force they do not submit in their minds, but only because their strength is inadequate. When men are subdued by power in personality they are pleased to their very heart's core and do really submit."

'And he concludes that "'power in personality' was what the city and its gods provided: that was the chief source of the great accomplishments that Kingship itself made possible. Thousands of years elapsed before the city passed on this personal power to the rest of its inhabitants".

'But did it pass this on? Or is this only a figure of democratic speech? Does the city's improvements committee or planning committee really represent the modern version of "power in personality"?

'If we look round our towns and into their governance, we are just as likely to find, with some notable exceptions, evidence of indecision and lack of personality. We find the two complementary and inseparable elements of town design, the traffic system on the one hand and the building blocks on the other as much a part of the same plan as the corridor and bedrooms of an hotel, split into separate administrations, financial, technical and even ideological. We find a continuing housing problem made more acute by rising standards of living, by the increasing rates of obsolescence, growing numbers of households, shortage of housing land, and not much improvement in building productivity.

'We find - again with a few exceptions - key areas for development, sometimes the whole town centre - in which local government finance and technical staff are just not adequate for the task of redevelopment, and no acceptable and





L-R: Professor J. S. Allen, Sir William, Mr Desmond Heap and Mr L. W. Lane. (Mr Rowland Nicholas, RPI, in the Chair, is obscured.)

ready system is to hand for harnessing private initiative and commercial know-how within the shafts of the municipal cab.

'With all the architectural, landscape and engineering skill which is available we find all-too-few examples of comprehensive layouts and designs in three dimensions, except perhaps in isolated parts of cities and the new towns and here the tune has, of necessity, to be played on the cottage piano, not on the concert grand.

'We see when we look around obsolescence beginning to gain on new construction in a number of industrial towns and conurbations, particularly their inner sections; we see public transport in danger of becoming a liability and being treated as such, when in fact it is our greatest hope of reducing the ferocious impact of the motor vehicle on city life.

'We notice how the whole quality of the urban scene is worsening so that more and more people become spectators of two dimensional things – the "Telly" is one of them – instead of participators in three; and so that as we lose interest in building the future, we turn more to preserving the past. And even then we cannot afford to keep our most characteristic symbol of a great Railway Age – the Euston Portico.

'This is not a situation for the dilettante and the valetudinarian, I don't think it is the time for narrow professional outlooks, nor for party politics which do not stem from conviction and principle. The barbed civilities of the committee room and the prolonged enjoyment of public inquiries will not go all the way towards a better Britain. It is not the cautious ones with antiquarian minds but the energetic ones with antiquarian drawing boards who are now most needed. The pendulum that swung to its peak in the early 1940s has since been descending. At the bottom of the swing it is probably only too easy to think that this is the natural position for all pendulums to come to rest. But all those who want the clock to go on – and this was the mainspring of action during the war years – must be anxious now to get rid of the drags that slow the pendulum down and prevent its rising to an equal and opposite peak. I think we should all agree that two major repairs, above all others, need to be carried out to the planning machinery, if this clock of ours is not to lose time rather badly.

'The first is a new set of principles for land development and re-development, in the face of rising numbers, fairer shares in a more affluent society and in the face of an absolute shortage

of space for certain forms of activity and recreation. The planning system of the nineteen-forties has been dismantled; and although it has left us a most valuable collection of spare parts, they hardly represent a useful machine any longer. The real profits of planning betterment still cannot be gathered in for the many, but only for the enterprising few; the conservation of land for the benefit of future generations is still far too difficult and expensive for a civilised country to tolerate; and on the other hand the aggregation or pooling of ownerships in central areas is so slow and so weak that our own generation is not being given the chance to build its own image of the ideal town except perhaps in the satellites outside the great cities.

'The second repair that is badly needed is the link between planning and design. This is still valid for the single building and has been extended to the small residential neighbourhood; but for anything on a larger scale or in a more comprehensive form we have not succeeded in rising to the occasion. This is not only a problem of unified ownership or unified control resulting from the lack of a unified land use system appropriate to our needs. It is also a problem of local government, of the uncertain and unskilled patronage of the arts and the pure sciences, of departmentalism and of minor professional divergences which weaken the strong bond that ought to exist between the original intention to plan, the drawing up of an agreed programme of economic land use, and its realisation in terms of unified design by architecture, engineering and landscape which reflects something at least of that original good intention, and has the power to move and to satisfy the man in the street and make him feel that he has a part in this planning process.

'This is the real adventure of building, the real stimulus to redevelopment. In spite of all the complications and the setbacks and delays our objective remains a most inspiring one. It requires teachers, thinkers and designers; and in fact our united professions can produce them if only they can clear some of the confusion and the bickering, and retain a clear and simple charter of their aims and objects.

'This, after all, was the basis on which the Town Planning Institute was founded. It forms the ancient rule of the monastic orders, and of the universities of the world; it was the formative idea that led to the growth of the Royal Institute of British Architects, of the Institution of Civil Engineers, of the Royal Institution of Chartered Surveyors.'



# Building in Twenty Years' Time

Report of the Conference held at Downing College, Cambridge, from 15-17 September 1961, organised by the Junior Liaison Committee of Architects, Quantity Surveyors and Builders.

## Speakers:

Conference Chairman: E. D. Jefferiss Mathews, OBE, ARICS [F]  
Economist: John Wood, MA  
Architect: D. E. Gibson, CBE, DCL, MA, MTPI [F]  
Quantity Surveyor: P. W. Grafton, FRICS  
Builder: D. E. Woodbine Parish, FIOB

In opening the Conference MR E. D. JEFFERISS MATHEWS [F] said:

'One of the biggest dangers of any generation is to assume that the state of affairs they know – internationally, politically, socially and technically – will be the same for the next generation. There is absolutely no precedent for this through history, yet it amazes me how complacent each generation becomes in refusing to be aware that like all others, it is in a transitory period of evolution. Even those who by nature are reformers tend only to concern themselves with reforming what exists to the particular ideals they have in mind at the moment.'

Mr Jefferiss Mathews went on to say that it had not been beyond the wit of man to study the present and from it to make reasonably accurate assumptions of the future. A worthwhile contribution could be made by a generation, who from a sound knowledge of present faults and ills, could plan ahead with proper vision based on research and study of the likely evolution and trend of things in the years immediately ahead.

None of us could make our respective contributions to building unless the building owner – more widely, the national capital investment which will be placed in building – is getting value for money. Gone were the days of patrons with money to spend on follies, delights and jollifications. Building was almost entirely a down to earth social service for providing the requirements for living – environment for living – education, work, social and religious welfare and health. To find out how we could organise ourselves to meet this probable hard pattern of economics, it was essential to make a probe forward to see what the economic trends might be and what they would require of us – what effect they would have on our industry.

MR JOHN WOOD, economist, pointed out that about half Britain's annual national investment went into new building. Making certain assumptions it looked as if the quantity of building might increase by about 66 per cent by 1981. But the labour force was unlikely to increase more than 5 per cent by then. This meant that output per man would have to increase by about 60 per cent.

MR DONALD GIBSON [F] felt that the increase in quantity of building would be higher than the 66 per cent mentioned

by Mr Wood; he forecast an increase of 75 per cent, which would include the servicing of the newly developing nations.

To meet this challenge, new techniques and greatly improved organisation in the building industry would be needed.

**Techniques.** Present inefficient methods would die out and more and more dry prefabrication would evolve in ever larger units. He cited CLASP (Consortium of Local Authority Special Programmes) which uses standard prefabricated components, on a module, saying that if the methods evolved in this system could be expanded and extended then he felt that we could succeed in our task. He suggested that the selection of a module should be based on the metric system to assist this country when it enters the European Common Market. Building regulations need to be rationalised and standardised throughout the country.

**Organisation.** There is an increasing need for large consortia with various specialists such as architects, builders, quantity surveyors and engineers under one roof. The various institutions also need rationalisation and co-ordination. Directorships in contracting firms should be open to all members of the professional team. More negotiated tendering and serial tendering should be practised to avoid the inefficient competitive tendering method, so enabling contractors to plan ahead with an assured programme. With advanced mechanisation and specialisation 'white coated' highly skilled operatives would predominate on building sites.

Lastly Mr Gibson stressed the importance of co-ordination of materials and information sources. Large builders' merchants for prefabricated units would have to be set up in many places to avoid long-distance haulage.

MR PETER GRAFTON, FRICS, agreed with Mr Gibson that the quantity of building would probably increase by 75 per cent in 20 years' time and stressed the need for long-term construction programmes to facilitate the most efficient and economic use of our building potential. He felt the Government should give a lead in this way in the public sector of our economy and also encourage regional activities in the design of standard components to an agreed module to help facilitate off-site factory productions of materials.

This would require a large and consistent demand to gain all the economic advantages possible. Specialist craft operators should also be preserved and architects would have to give a lead in providing them with continued employment.



**Independence of Quantity Surveyors.** Mr Grafton said that if the consortia advocated by Mr Gibson became a reality, he saw the need for the client still to have independent advice on cost. He then outlined the probable future changes in the operation of the quantity surveyor:

- (i) Increased service of cost advice at all stages of the contract.
- (ii) Change in the character of bills of quantities, using a revised format of greater use to the contractor in planning his work, allied to a simplified method of measurement.
- (iii) A vast improvement in efficiency in the settlement of final accounts.
- (iv) Use of computers, though this would be of limited advantage, since the information fed into the computers still has to be programmed.

**Retention of Competitive Tendering.** Industry must have the security of comprehensive construction programmes for a number of years ahead prepared on a national or regional basis; but the principle of competition remained the best means of letting contracts in a free economy as a criterion of efficiency and economy: there could also be a confusion of accountability when the contractor is involved in the planning stage. The all-in service involved in a package-deal is only necessary because of professional inadequacy. There might be cases where negotiated contracts could be of advantage i.e.: on novel or complex jobs, where early co-operation of the contractor was particularly desirable.

MR DAVID WOODBINE PARISH, FIOB, stressed the necessity for a higher quality of leadership, saying that there was far too much woolly thinking, apathy and resistance to change.

**Manpower.** Regardless of progress in exchanging knowledge and technical advice, certain factors would not change. The man on the site and the staff in the office would not differ fundamentally from their present-day counterparts, but the relationships between them must move towards greater mutual respect and vastly improved communication.

**Profits.** The profit margins in the building industry were at present quite inadequate if the industry was to sustain and expand training, research and mechanisation, which were essential for the industry as a whole to meet the demands which it would face in 20 years' time.

#### Discussion Group Reports

Following the opening addresses by the principal speakers, the Conference broke up into groups to discuss the problems raised. The following is a summary of conclusions reached by different discussion groups.

**Pattern.** It was felt that Britain's entry to the Common Market would not have eased the increased volume of work, nor would building generally be much more competitive. Standardisation, including British Standards, must be achieved related to the use of the metric system. There would be standardised bye-laws throughout the country. With first-class standardised components nationally integrated, we should be exporting designs and design systems while importing some components and unskilled labour.

Labour would, therefore, fall into three groups:

- (a) Semi-skilled factory technicians producing increasingly large architect-designed components.
- (b) Unskilled labourers and highly skilled site erectors.
- (c) Skilled craftsmen and apprentices for maintenance purposes on existing buildings and prestige 'one-off' buildings of the future.

**Efficiency.** Self-discipline would have to be practised by the architect to avoid the use of specials where standard items were available. This would give greater output per man and allow time for the architect to devote his skill to design, planning and 'delight'. Quantity surveyors must increase

efficiency by use of a simpler standard method of measurement and improvement of contract final account settlements (this would be assisted by the architect's use of his own standardised details or manufacturers' standardised details). Bills of Quantities should provide more site information. Contractors must have more fore-knowledge of work so as to be able to plan continuity of work with fully committed labour over a longish period, which could be achieved by a system of serial contracts with the use of standardised components by architects. The contractor would then have more time to order materials so that the building time could be speeded up. Builders should achieve professional status by qualifying examinations.

**Integration.** To meet public demand for quicker building, contractors were offering the package-deal. This practice would continue while professional institutions remained reluctant to attain a very much closer degree of co-operation between the professions and construction members of the industry. It was felt that architects and surveyors should be able to decide for themselves whether they want to join the contracting or the consulting sides of the industry without losing their professional status. It was envisaged that by 1981 there might well be a Royal Institute of Architects, Builders, Engineers and Quantity Surveyors. It was also felt that with the enormous amount of money being spent on building, the industry as a whole should take steps to attract the best brains from schools.

**Techniques.** The members of the Conference all pressed the point of improved techniques of building, the emphasis being on better site conditions, prefabrication and increased mechanisation, the elimination of wet trades, the reduction of tolerances. It is envisaged that components of buildings would arrive on site finished and not requiring site labour for any other purposes than the assembly of the finished article.

**Education.** Combined education for all members of the industry was essential at university level in order to provide all members of the team with a common understanding of each other's problems and a common language.

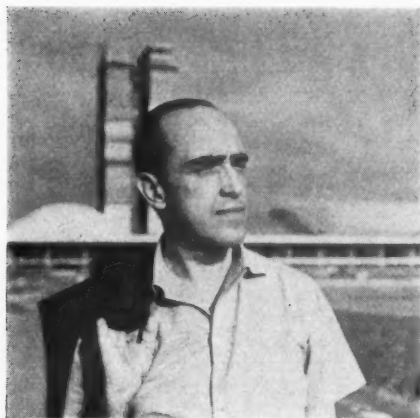
**Transmission of Knowledge.** It was essential that knowledge and information could be obtained from a centralised source and should be able to be transmitted to all concerned in building efficiency, effectively and quickly. More time should be spent on research and the centralised body should pump out this research. All building products must be classified and given to the user with all the information which he will require for his use.

Technical information on materials would have to be centralised and far more efficient. It was suggested that materials must be properly understood and their true values determined. There was a need for an unbiased trade magazine on the lines of *Which*.

*The Junior Liaison Committee proposes immediately to follow up integration and transmission of knowledge as the first step to putting into practice the conclusions reached at the Conference. It is proposed to hold a series of meetings during the coming year to discuss this and related problems.*





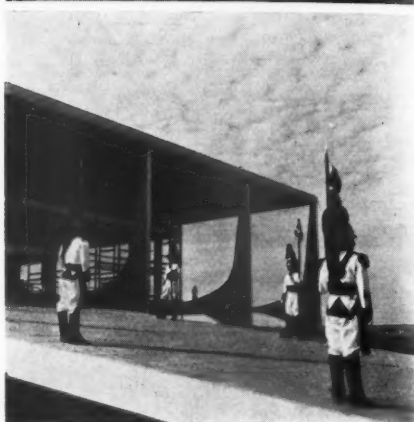


Above: The Brazilian parliament buildings and their creator, Oscar Niemeyer.

Top R: '... to be monumental, symbolic, magnificent and beautiful'. The Three Powers' Place during a ceremony.

Bottom R: '... Classical traits and almost a colonnade!' The President's working palace.

Photos: George Balcombe



## Conversation in Brasilia

between Robert Harbinson and George Balcombe

(Robert Harbinson is an Irish author and while in Brazil wrote for the Sunday Telegraph. George Balcombe [A] was 1960 holder of the Leverhulme Travel Grant to Brazil.)

R.H. I am anxious to know what living in Brasilia is like.

G.B. It is very difficult. The city, as you see, is still far from complete and lacks many necessary amenities.

R.H. Why is this?

G.B. Well, it is such an enormous undertaking. Only the bones of it can be said to be ready yet.

R.H. What has been achieved so far?

G.B. The whole outline of what I call Lucio Costa's 'bow and arrow' plan is laid on the ground in two dimensions. Much of it is already built up into three dimensions.

R.H. But how much exactly?

G.B. Nearly all of the 'arrow', that is, the monumental avenue with the Congress and other government buildings, is finished. There are one or two important exceptions, notably the cathedral and the opera house which are only structural shells, so far. Concerning the 'bow', that is, the residential part of the city, it is difficult to be precise. A great number of apartment buildings with schools, a cinema, a church and shops have been built in the southern half of the 'bow'. But in a way, it is spasmodic. The northern half is almost untouched. At the crossing of the 'bow' and 'arrow' the multi-level road network is complete.

R.H. When I drove here from the airport today, I had the impression of a large building site at various stages of completion. Is this your description too?

G.B. Yes and no. In spite of incompleteness, it is remarkable how Brasilia already has the aspect of a city.

R.H. Why do you say 'aspect'? Do you mean 'atmosphere'?

G.B. No, definitely not. Brasilia has the aspect of a city, but the atmosphere of a building site.

R.H. Atmosphere is largely a matter of people. What sort of people are in Brasilia? Many foreigners?

G.B. Surprisingly few foreigners. This is a city made by and for Brazilians! At the moment, the Brazilians are roughly of three types—government people, building workers (including professional men) and the third type who clothe and feed and entertain the other two types.

R.H. Doesn't this make a lop-sided kind of population?

G.B. It does indeed. The city lacks atmosphere partly because it lacks variety of people. In fact, if you want to see life, you have to go out of town to the Free City. This is Brasilia's equivalent of a down-town area, though it lies six or seven miles beyond the city.

R.H. I was under the impression that Brasilia was self-contained.

G.B. This is a fairly usual idea people have when they first come here—a false one unfortunately.

R.H. Why 'unfortunately'?

G.B. Because Lucio Costa originally intended a self-sufficient city. The cellular disposition of residential squares in the 'bow' was intended to allow for a rich, city-like, truly urban complex of living.

R.H. You mean, all social classes being together?

G.B. Both classes would be a more accurate description. The Brazilian equivalent of our own middle classes is proportionately very small. Brasilia, however, is almost entirely occupied by the middle class—government employees, shopkeepers and so on. The city is not yet smart enough for the wealthy or cheap enough for the poor.

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R.H. Is this temporary?

G.B. I don't know whether it's temporary, but it's certainly terrible.

R.H. You mean because Lucio Costa's splendid social ideas did not work in practice?

G.B. Yes. Costa's social ideas were too far ahead of the existing pattern of Brazilian society.

R.H. He wanted to do too much, too soon.

G.B. From the point of view of what was practical, yes. Consequently, the out-of-town people of Brasilia live in shanty towns. It seems completely wrong for a brand-new city to start life with ready-made slums.

R.H. Who is to blame?

G.B. Blame in such affairs is always difficult to place. Obviously, the causes are social and economic rather than architectural. All Brazil's major cities have shanty towns. But I think it should have occurred to somebody that thousands of poor people seeking a better life would flock to Brasilia, and that shanty towns would be the result.

R.H. Would you say, then, that this raises the question as to the nature of Brasilia, as to what exactly it is?

G.B. Yes, I would say that. Whatever else it might have been intended for, Brasilia was never to solve the unwanted squatters' housing problems.

R.H. Perhaps Brasilia is more of a national symbol.

G.B. I think it is. But since this particular symbol has been cast in the form of a city, it is obviously subject to a city's problems. This is what I think should have been foreseen.

R.H. How do the Brazilians themselves react to this slum skeleton in the cupboard?

G.B. They are largely inured to it. After all, it is nothing new to them.

R.H. Does this add up to a serious failure?

G.B. I don't think so. But one has to bear in mind the nature of Brasilia. It is more of a monument than a social programme. This idea will colour any criticism which one makes.

R.H. I'm sorry to press the point, but don't you think that this is an unrealistic attitude for the mid-20th century?

G.B. Whether it is unrealistic or not depends on what the builders were aiming at. Demonstrably, Brasilia is monumental and symbolic.

R.H. You say 'demonstrably'. But can you demonstrate this?

G.B. Yes, by referring to statements made by Brasilia's creators. The whole conception from the beginning was visionary. Lucio Costa and Oscar Niemeyer have both clearly expressed their own visual and formal approach. But their confessions are more than borne out by what you can actually observe by walking about in the city. You might term this the internal evidence. You have only to make an afternoon tour to see the force of its monumentality, maintained in some cases even at the expense of being practical – I won't say 'functional', because Brasilia's function is to be monumental. Perhaps it is asking for trouble, but in my view, Brasilia is a Baroque conception!

R.H. I can see what you mean by asking for trouble!

Before taking you up on this Baroque business, may we just go back a step? Two steps, rather. What are the confessions of the creators you mentioned just now? And what is the internal evidence?

G.B. Both Costa and Niemeyer have written about Brasilia. Their comments can be read in architectural periodicals of various countries, including *Modulo* of Brazil.

R.H. I see. But you have also talked to Niemeyer?

G.B. Yes indeed. From our talks I obtained a very clear

idea of Niemeyer's aims and attitudes. To be brief in what is rather an involved topic, he is interested primarily in using new forms in order to create beauty. He is, of course, one of the world's few inventors of new shapes. And his shapes derive, partly at least, from the nature of the material in which they are built. He believes in delighting and surprising the eye by new interpretations of old and well-tried visual tricks. On no account would he imitate the past. But he certainly makes free use of its methods. For instance, he makes much of colonial Portuguese handling of rich and complex lines and space and, of course, the sinuous curve.

R.H. Now I'm trying to get you to qualify your point about Brasilia being a Baroque conception, and about its being monumental and symbolic. What is the 'internal evidence' you spoke of?

G.B. This is closely linked with the creators' own confessions. In common with most architects who theorise, the theory comes after the building. Cause follows effect, as it were!

R.H. Yes, I know, a dangerous pastime. Hasn't John Summerson written of the dichotomy between what architects do and what they say? Would you say that Costa and Niemeyer follow their famous predecessors in this?

G.B. No, I don't think they do. What they say or write roughly corresponds with what they do. But artists, of course, are notorious for not seeing woods for trees. I mean, Brasilia and its buildings may have qualities which the creators themselves are unaware of.

R.H. What, briefly, does Niemeyer say, as distinct from do?

G.B. Well, he has often tried to explain his own motives, and motifs, too! But anything he writes, quite clearly comes *after* the event, and is in no way a programme. He believes that architecture (for himself, at least) is a matter of beautiful form. He will, if necessary in order to achieve this, sacrifice other (and in his view) lesser considerations. There is ample historical precedence for this, though it is an attitude frowned on in England at the moment by many architects – despite the fact that the long-suffering man-in-the-street is crying out for more beauty!

R.H. I agree that we want beauty in building. I am beginning to see what you are getting at – that all the evidence about Brasilia being monumental is to be found both in words and in the buildings.

G.B. Right! Monumentality, and the pre-eminence given to beautiful form, is written into every line, every curve of the buildings themselves. Even if the authors had denied this in their theorising, these qualities would be present, nevertheless.

R.H. You are talking now of the principal government buildings.

G.B. Yes. I have certain reservations, as you know, about the residential squares.

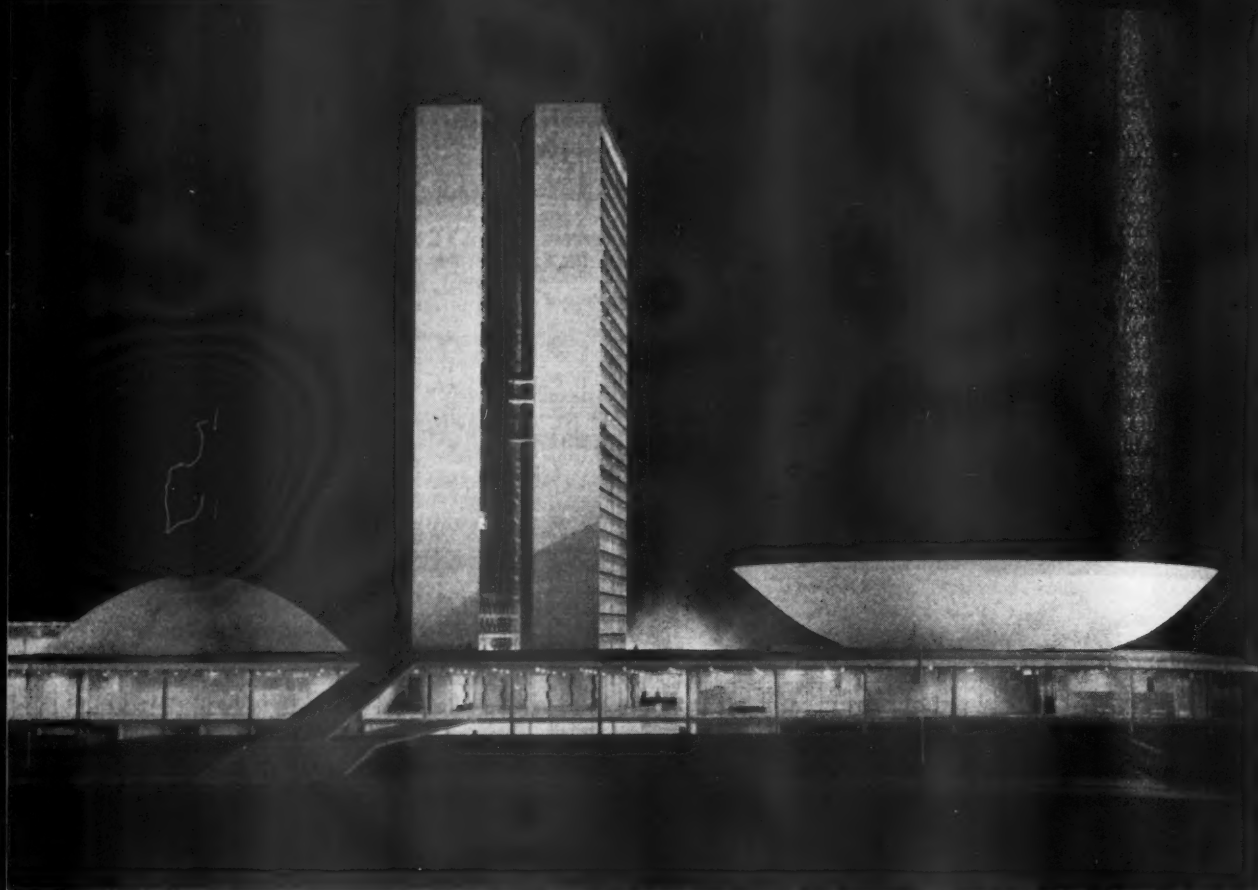
R.H. Now, how has Niemeyer approached the enormous task of designing the monuments in this monumental city?

G.B. Niemeyer has explained to me, for instance, that he tried to get into his buildings some of the *delight* which Portuguese colonial architecture possessed two or three centuries ago. You know – richness, playing with light, using sinuous curves, fun with foliage and gilded gewgaws, painted ceilings, and all the lovely things of those lovely buildings – all well disciplined by strict rules of composition and proportion.

R.H. Do you think that such rules influenced the design of Brasilia?

G.B. Yes. But largely unconsciously. This is where the outsider, coming to the thing 'cold', can discern qualities which its creators may not realise are present.





Above: '... play with light'. The parliament buildings at night.

Below: '... a strict control is placed on the apartment blocks within each of the residential squares'. Part of Brasilia's southern wing.



Brasilia

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Brasilia is a Baroque conception! The cathedral in construction

R.H. I see, yes. Now what rules do you think can be discerned in Brasilia?

G.B. Strictly Classical (capital 'C') ones. This again is another reason for calling the city a Baroque conception. In the city plan itself there is the concept of axis. In fact, the essence of the whole idea is of two axes crossing – the 'bow and arrow' plan in other words. In a strictly Classical manner, the main axis, the 'arrow' is terminated by a point of climax – the Congress buildings. Here also is the great public square – the Three Powers' Place. The two great buildings which flank the square have strong Classical traits and almost a colonnade! Also present is the Classical architect's trick of making the buildings interesting from any angle, despite the emphatic stressing of axis and climax. And perhaps the most exciting of all these buildings' visual qualities is a reference back to Classical Greece! Niemeyer's buildings stand white, clear and abrupt in the landscape, exactly as Greek temples do. In fact, the whole city had this abruptness in the landscape. This gives it a most magical appearance when seen from the farther side of the vast artificial lake.

R.H. You believe these Classical characteristics are present in strong enough force to be important?

G.B. I think these qualities are strong enough to prove, by internal evidence, that Brasilia is a monumental and symbolic city.

R.H. Personally, I still find this rather a difficult position to take up. After all, the 'bow' of the city plan is entirely a residential affair. There is nothing monumental about living in a block of flats!

G.B. True. But in the attempt to retain a monumental character through the whole city, the residential squares try to force living-patterns into a strait-jacket. I met architects from all over the world in Brasilia, and the majority of them held this opinion.

R.H. What sort of a strait-jacket?

G.B. A very strict control is placed on the dimensions and disposition of the apartment blocks within each of the squares. They may not be more nor less than six stories, they must be *en piloti*, and must be of a certain length. The result, so far, is monotony and lack of individual identity.

R.H. Could this be because there was a pressing political need to get the city well under way in as short a time as possible?

G.B. Probably, yes. As I said earlier, the residential squares are not all completed. Perhaps more interest and variety will come with later editions.

R.H. At the start you said that the 'bow and arrow' is complete in two dimensions, but only parts of it in three dimensions. Can you enlarge on this?

G.B. I mean that Costa's brilliant road system is completed, but that the buildings it serves are not. But it is true that the roads themselves are not continuously flat, two-dimensional things, because the flyovers pass over and under and form an essential part of the city's visual pattern.

R.H. Does the spinal road system through the 'bow' make Brasilia a linear city?

G.B. The short answer is no. The long answer is that, yes, Brasilia does enjoy some advantages of the linear city. Basically (I keep coming back to this!) Brasilia is Classical, that is, symmetrical, axial, and possessing a dominant centre climax where the 'bow' crosses the 'arrow'. You always come back to this dominant centre crossing.

R.H. This crossing has the reputation of being difficult to understand.



**G.B.** It is simple. It is really a great piazza with a hole in it. The piazza is rectangular and on three principal levels. The two lowest sort out and distribute the motorways from the 'bow' and the 'arrow' and the top level will eventually be a sort of Trafalgar Square or Piccadilly Circus – but without traffic.

**R.H.** What do you think is Brasilia's future?

**G.B.** I think it has a great future. But this will take perhaps a century to achieve. Unlike the fantastic speed of actual construction, the future cannot be rushed. Certainly, the city is now integrated into Brazilian life as a whole.

**R.H.** I asked you just now if you thought Brasilia was a failure, and you said no. But do you think it is a success, shanty towns and other weaknesses apart?

**G.B.** Brasilia is undoubtedly a success in terms of what it set out to be. You know that I believe it set out to be monumental, symbolic, magnificent and beautiful. With the reservations I have already made, I think Brasilia is immensely successful.

**R.H.** Can the rest of the world learn anything from the city?

**G.B.** It is important to realise that Brasilia is unique. It is a unique Brazilian solution to a unique Brazilian problem. The problem, incidentally, is not one of building a city on a zany impulse. It is an old problem, first mentioned in the late 18th century. The building of a new capital is part and parcel of Brazil's great drive inland to exploit her vast interior regions. Brasilia is only a drop in a vast ocean

of inland development which has already started to flood the continental-sized hinterland. Starting, then, with the fact that Brasilia is unique, observers may, of course, read into or take out of the new capital whatever they wish.

**R.H.** Can you sum up your impressions of Brasilia in a few words?

**G.B.** This is like being asked to name a favourite composer when one likes them all! Well, I think the overriding impression is one of an astonishing clarity and an astonishing unity.

**R.H.** What do you consider the biggest faults, if any?

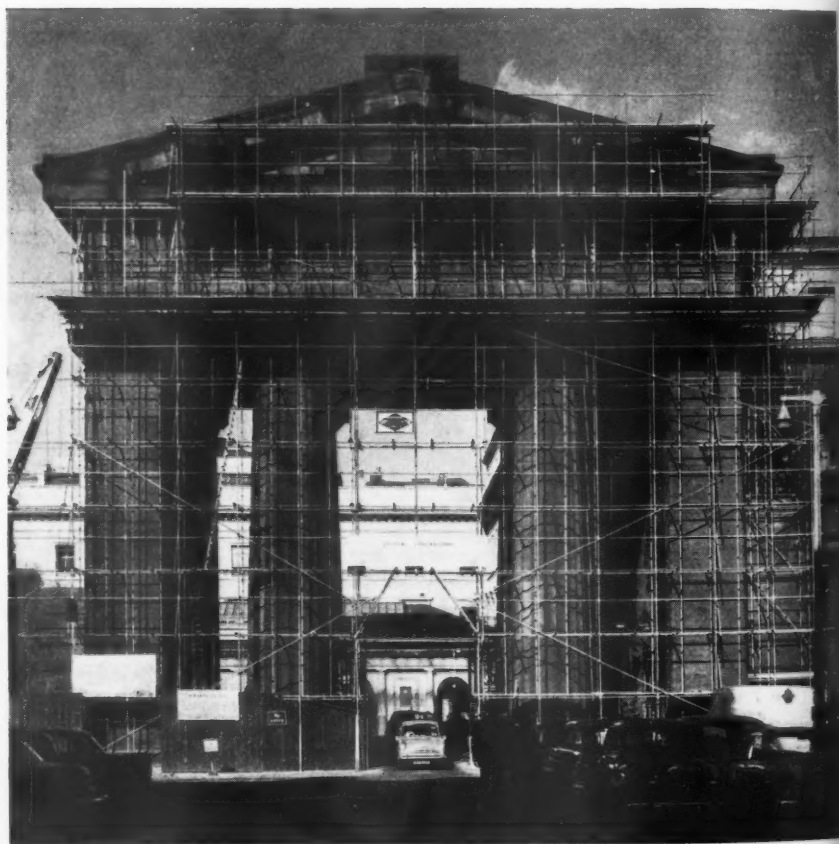
**G.B.** The biggest fault, apart from the shanty settlements, I think, is a social one rather than planning or architectural. The rip-roaring, blood-red life of the down-town Free City should have been placed bang in the centre of the main city right from the word 'go'. Like a rod of uranium in a reactor! The present vacuum of social life would have been avoided by doing this.

**R.H.** Which do you think is the finest building in the city?

**G.B.** Without doubt, the President's Palace of the Dawn. It is one of the most beautiful buildings I have ever seen. It has a subtlety and grace which utterly escapes the camera. If for no other reason, I would like to come back here in future years to see this palace. After all, by being the very first building to go up, it was literally the dawn of Brasilia.

The Euston portico: The Royal Fine Art Commission in a letter to the Ministry of Transport expressed the hope that the proposed demolition would be seriously reconsidered by the ministries concerned and by the British Transport Commission. The RFAC is convinced that there is a strong body of public opinion which consider the re-erection of the Arch a matter of national importance. At the time of going to press the Prime Minister had notified the Victorian Society that the possibility of numbering and storing the stones would be examined.

Photo: John McCann









NOTICES

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# Notes and Notices

## NOTICES

**Special General Meeting, Tuesday 28 November 1961 at 6 pm.** A Special General Meeting will be held on Tuesday 28 November 1961 at 6 pm, prior to the Second Ordinary General Meeting on that date, for the purpose of confirming such resolutions as are passed at the Special General Meeting held on Tuesday 7 November 1961 in regard to Bye-laws 42, 56, 58, 59 and 60, new drafts of Bye-laws 43 and 47 and a new Bye-law ultimately to be included under the section dealing with the constitution of the Council and then to be numbered 36 (B).

(Light refreshments will be provided before the meeting.)

**Second Ordinary General Meeting, Tuesday 28 November 1961.** The Second Ordinary General Meeting of the Session 1961-62 will be held on 28 November 1961, at the conclusion of the Special General Meeting to be held on that date, when Mr Oliver J. Cox [A], Mr Graeme Shankland, MA, AADIP, [A], and Mr F. G. West [F] will read papers on 'New Town Development: The Hook Study'.

**Third Ordinary General Meeting, Tuesday 12 December 1961 at 6 pm.** The Third Ordinary General Meeting of the Session 1961-62 will be held on Tuesday 12 December 1961 at 6 pm. Mr J. P. Eddy, QC, will read a paper on 'Professional Responsibility'.

(Light refreshments will be provided before the meeting.)

**Associates and the Fellowship.** Associates who are eligible and desirous of transferring to the Fellowship are reminded that as from 1 January 1956 all candidates for the Fellowship will be required to submit to the Fellowship Examiners drawings and photographs or examples of work. Candidates may also be required to attend for an interview, which may however be dispensed with at the discretion of the Fellowship Examiners. The necessary nomination forms may be obtained from the Secretary, RIBA.

**Licentiate and the Fellowship.** By a resolution of the Council passed on 4 April 1938 all candidates whose work is approved are required to sit for the Examination, which is the design portion of the Special Final Examination, and no candidates will be exempted from the Examination.

**Note.**—The above resolution does not affect Licentiate of over 60 years of age applying under Section IV, Clause 4 (c) (ii) of the Supplemental Charter of 1925.

**Architectural Competition - Assessors' Awards.** All architects who take part in architectural competitions are reminded by the Council of the RIBA that participation in a competition is a definite acceptance of the principle that the award of the assessors is final and binding upon themselves as well as upon the promoters, and that any competitor who feels that he has real ground for dissatisfaction with an

assessor's award should communicate with the Secretary of the RIBA.

Further, all architects, whether competitors or otherwise, are reminded that discussion or correspondence in the public or professional press which tends to criticism or disparagement of an assessor or award cannot alter the final and binding effect of the award, but may prejudice architects and the whole competition system in the opinion of the public, and is therefore highly undesirable.

**The RIBA London Architecture Bronze Medal 1961.** The attention of members is drawn to the form of nomination and the conditions subject to which the award will be made for a building built within the counties of London and Middlesex during the three years ending 31 December 1961, enclosed with this issue of the JOURNAL. Any member of the RIBA may nominate any building for consideration by the jury. Nomination forms must be returned to the Secretary, RIBA, not later than 28 February 1962.

**British Architects' Conference 1962.** The British Architects' Conference 1962 will be held at Coventry from 10 to 13 July, at the invitation of the Birmingham and Five Counties Architectural Association. Full details of the programme will be published in due course. Particulars of accommodation in hotels will be published in an early issue of the JOURNAL.

**Postcards notifying Sub-Contractors of the issue of a Certificate** - price 8s. per 100, post free. These postcards are designed for use in conjunction with the revised form of architect's certificate. A specimen of the postcard and of the certificate will be sent on request. A full list of the Institute's publications is obtainable from the Publications Office, who maintain a mailing list for those members who would like to be notified about new publications, etc.

## Competitions

**Copies of the conditions of competitions are deposited in the RIBA Library and are available for inspection.**

**Note.** An applicant for the conditions of a competition must state his registration number.

**New County Offices, Reading.** Last day for submitting designs: 5.30 pm on 5 June 1962. Last day for questions: 22 January 1962. Full particulars were published in the JOURNAL for October, page 463.

**The University of Liverpool: Halls of Residence.** Last day for submitting designs: 4 September 1962. Last day for questions: 1 January 1962. Full particulars were published in the JOURNAL for October, page 463.

**Ideal Home/RIBA Group Housing Competition.** Last day for submitting designs: 2 January 1962. Full particulars were published in the JOURNAL for September, page 427.

**City of Johannesburg, Republic of South Africa. Competition for Initial Group of Buildings and Site Layout: Civic Centre.** Closing date for the dispatch or handing in of designs is provisionally 8 June 1962. Full particulars were published in the JOURNAL for August, page 389.

**'Arborite' Design Competition.** Last day for submitting designs: 10 January 1962. Particulars were published in the JOURNAL for September, page 427.

**International Competition of Ideas for the Development of the Expansion of Bilbao.** The above competition has been approved by the IUA. The period of registration is from 1 November to 1 December 1961, and the decision will be announced between 1 and 16 June 1962. The first prize will be one million pesetas (approx. £5,950).

Further information can be obtained from the Executive Committee, 'Gran Bilbao', Spain.

## COMPETITION RESULT

**The Gas Council House Design Competition.** Type 1. 1. (£500) Peter Cook [Student] in association with David Greene. 2. (£300) Bernard Hartley. 3. (£200) M. F. Clements [Student] and A. Horan.

Type 2. 1. (£500) D. Callaghan [A]. 2. (£300) H. K. Harwood [A]. 3. (£200 divided equally) A. J. Molyneux-Smith [Student]; M. O'Connor [A] in association with Lingard and Associates. Commended: Desmond Thornhill [A] and Geoffrey P. Clemence [A].

Type 3. 1. (£500) Mrs Lydia Dransfield [A] in collaboration with F. J. Bancroft [A]. 2. (£300) Dennis B. Stephenson [Student]. 3. (£200 divided equally) Bernard Hartley and R. S. Edmundson [A]. Highly commended: J. R. Greenway [A]; W. J. Nicholson [A]. Commended: W. M. Ladbroke [A]; A. M. Purves [A].

Type 4. 1. (£500) Mrs Lydia Dransfield [A] in collaboration with F. J. Bancroft [A]. 2. (£300) and 3. (£200) combined and divided equally: Arnold Moss [A] in association with Harold Baxter [Student]; A. L. Vassenter [A] and P. D. Udall in association with B. Reynolds. Commended: R. S. Edmundson [A].

An exhibition of entries for the competition is being held at Murdoch House, 1 Grosvenor Place, London, SW1, until 17 November. It is open daily, Monday to Friday, from 10 am to 5 pm, and admission is free.

## BOARD OF ARCHITECTURAL EDUCATION

**Rome Scholarship in Architecture, 1961.** In addition to the Rome Scholarship, the award of which has already been announced, the Faculty of Architecture of the British School at Rome have awarded a special scholarship of one year's duration to the *proxime accessit* in the Competition, Mr C. H. Bosel, BARCH. (Queensland).



## Allied Societies

### Changes of Officers and Addresses

*The South Wales Institute of Architects.* Permanent Secretary (for all communications), A. W. Holder, 10 Timbers Square, Roath, Cardiff.

*Ceylon Institute of Architects.* President, A. P. J. V. de Z. Samarasekera [A]. Hon. Secretary, Herbert E. Gonsal [F], 10-12 Regent Buildings, Colombo 2, Ceylon.

## General Notes

**Society of Architectural Historians of Great Britain.** The 1961 Annual Conference, held at Holland House, Edinburgh, from 15-17 September, was attended by 41 members and their guests. The proceedings opened with an informal reception and sherry party after which Mr David Walker presented a paper, 'The Search for a New Style', dealing with the 19th-century architecture of Glasgow and Edinburgh. Later that evening the conference viewed the impressive panorama of Edinburgh at night from the summit of Calton Hill. The following morning a comprehensive tour of the city was led by Mr Colin McWilliam, Assistant Secretary to the National Trust for Scotland, and this was followed by a reception given by the Trust at Gladstone's Land, Lawnmarket, at which Mr Ian Lindsay [F] lectured on the architectural development of Edinburgh. In addition members visited the University Upper Library to inspect a specially assembled exhibit of drawings by W. H. Playfair. The guest of honour at the Annual Dinner was Mr Percy Johnson-Marshall [A] who spoke on 'Edinburgh in the 21st Century'.

The final day of the conference was devoted to visiting a number of distinguished Scottish country houses - Duddingston, Mellerstain and Oxenford Castle where Mr McWilliam, who was responsible for the organisation of the conference, lectured on 'Robert Adam in Scotland'.

The Fourth Annual General Meeting of the Society took place on Friday 15 September, and the business included the election of the following officers for the year 1961-62: **President:** Mr John Gloag [Hon. A]; **Chairman:** Mr Bruce Allsopp [F]; **Honorary Secretary:** Mr John Archer [A]; **Honorary Treasurer:** Mr James Harris [A]; **Editor: Architectural History:** Mr Frank Jenkins [A].

In addition Dr Peter Murray and Dr Derek Buttle [A] were elected members of the Executive Committee.

**Leverhulme Research Awards: Fellowships and Grants, 1962.** Application is invited for Fellowships and Grants in aid of research. These awards are intended for senior workers of established position and are limited to British-born subjects normally resident in the United Kingdom; in exceptional circumstances the Trustees may waive the condition as to residence.

No subject of inquiry is excluded from consideration, but preference is given to subjects in which existing provision for research is inadequate.

The duration of the awards does not

extend over more than two years or less than three months and the amount depends on the nature of the research and the circumstances of the applicant.

Application must be made on Form 'F' obtainable together with further details from the Secretary, Leverhulme Research Awards, St Bridget's House, Bridewell Place, London, EC4.

The closing date is 31 December 1961. Results will be announced in May and the awards will normally date from 1 September 1962.

**Commission for the New Towns.** The Minister of Housing and Local Government has made the first appointments to the Commission for the New Towns, which came into being on 1 October, and which will assume responsibility for the assets and properties of the new towns as and when each reaches the stage when the main development is substantially completed. As foreshadowed in a statement in August, the Minister has appointed Sir Duncan Anderson as Chairman of the Commission and General Sir Nevil Brownjohn and Mr Henry Wells as members. He has also appointed Mr J. D. Russell, a member of a firm of City accountants, as a member of the Commission.

One or two further appointments are likely to be made in the near future.

**Stephenson and Turner Post-Graduate Travelling Scholarship.** Mr J. Chidgey, B.A., B.Arch., A.R.A.I.A., has been selected by his firm, Stephenson and Turner, as the recipient of the 1961-62 Post-Graduate Travelling Scholarship. He is the third member of the firm to benefit, and the scholarship, in this instance valued at £4,500, will enable him to spend one academic year at the University of California, studying Environmental Design. Mr Chidgey, on the completion of this post-graduate course, will spend one month travelling in the US and England.

The establishment of such a post-graduate scholarship by a practising firm is unique in Australia. The firm feels that in giving young architects this opportunity for special study they are not only strengthening their future, but are making a contribution to the future of the profession.

**RAIC.** Mr Diefenbaker, Prime Minister of Canada, was offered on 22 September the services of the architectural and engineering professions of Canada in the face of a worsening international situation, and amid current demands to develop effective emergency measures in all communities.

Mr W. L. Wardrop, President of the Canadian Council of Professional Engineers, and Mr Harland Steele, President of the Royal Architectural Institute of Canada, led a small delegation to discuss with the Prime Minister the fostering of closer collaboration between the Federal Emergency Measures Organisation and the architectural and engineering professions in developing plans to meet any national crisis. The two national associations advocated the formation of an advisory committee of senior architects and engineers to work closely with Government planners in helping to implement measures calculated to protect the public against the threat of nuclear fallout.

## Obituary

**Gordon M. West, F.R.A.I.C.** [F] died on 5 August 1961.

Mr Roy J. Switzer writes:

'Gordon M. West, born in Toronto and a graduate of Jarvis Collegiate, passed away after a sudden illness, at the Toronto General Hospital, aged 74 years.

'Mr West obtained his architectural education under the apprentice system and spent some years previous to World War I in the offices of Darling and Pearson, George Gouinlock and others.

'During the First World War he went overseas with the Queen's Own Rifles, returning with the rank of Major in the 12th Battalion Canadian Engineers.

'Following this he went into partnership in the firm of Molesworth, West and Secord, where he concentrated mainly in the executive and supervising side of the work.

'After the Second World War he formed the firm of West and Switzer, producing a wide variety of buildings, residential, industrial and commercial, including the War Amputations building.

'Mr West showed considerable talent in business organisation and financial affairs and had broad experience in committee work of many kinds.

'During the early '30s he was active in the affairs of the OAA and the RAIC, serving on the executive and being president of the RAIC from 1932 to 1934. Later he was made a Fellow of the Royal Institute.

'He was president of, and largely responsible for, the organisation of the National Construction Council and worked in preparing briefs presented to the Rowell Siros Commission.

'Mr West travelled extensively in England, Scotland, France, Italy, etc.

'For years an enthusiastic member of the Board of Trade and Board of Trade Club, he had long time service on various committees, especially on Assessment and Engineering groups.

'He was also a member of the Arts and Letters Club, the Lambton Golf and Country Club, the Toronto Tennis Club, the Chattern Debating Club and military groups.

'The profession owes a great deal to Mr West's efforts to help establish the Ontario Association and strengthen it in the dark days of the '30s and his many colleagues and friends extend most sincere sympathy to his wife and family.'

### MEMBERSHIP

**Resignation.** The following resignation was recorded during September 1961: George Uvedale Spencer Corbett [F] (Rome).

**Transfer to Retired Membership.** The following member was transferred to Retired Membership during September 1961: Samuel Dennis Wheeler-Carmichael [A] (Biggar).

**Correction.** It is regretted that the surname of William George Thoms (Nottingham) was printed incorrectly in the October JOURNAL.



# Notes from the Council Minutes

Meeting held on 3 October 1961

## Appointment of RIBA Representatives

- (a) *British School at Rome: Council.* Mr E. D. Mills [F] (reappointed for three years from 1 July).
- (b) *Regional Advisory Council for Technological Education (London and Home Counties): Architecture and Building Advisory Committee.* Mr W. A. Allen [A] (for three years from 1 September). *Art and Industrial Design Advisory Committee.* Mr John R. Reid [A] (for three years from 1 September).
- (c) *Brixton School of Building: Governing Body.* Mr Philip Bennett [F] (reappointed for three years from 1 September).
- (d) *Camberwell School of Arts and Crafts: Governing Body.* Mr E. D. Mills [F] (reappointed for three years from 1 September).
- (e) *Hammersmith College of Art and Building: Governing Body.* Mr T. B. Harper Ellis [A] (reappointed for three years from 1 September).
- (f) *Technical College for the Furnishing Trades: Governing Body.* Mr D. W. Pye [A] (reappointed for three years from 1 September).
- (g) *Yorkshire Educational Association for the Building Industry: Council.* Mr R. H. Winder [F] (for the period ending April-May 1964).
- (h) *East Ham School of Building: Advisory Committee.* Mr D. W. Aldred [F].
- (i) *South West Regional Council for Further Education: Joint Art Advisory Sub-Committee.* Mr Evelyn Freeth [A] (reappointed for three years from 1 October).
- (j) *Epsom and Sutton School of Art: Governing Body.* Mr Frank Rutter [F] (reappointed for three years from 1 August).
- (k) *Kingston School of Art: Governing Body.* Mr C. W. Hutton [F] (reappointed for three years from 1 August).
- (l) *Sunderland Technical College: Advisory Committee to the Advanced Building and Civil Engineering Department.* Mr G. H. Hawkins [F].
- (m) *National House Builders' Registration*

*Council.* Mr G. Grenfell Baines [F] and Mr P. B. Dunham [F].

(n) *BSI Committee B1-1: Co-ordination of Building Standards.* Mr J. T. Redpath [A].

(o) *RIBA Architecture Bronze Medal Award Jury: The Federation of Malaya Society of Architects.* Mr E. J. Seow [F] (President of the Singapore Institute of Architects).

(p) *The Great Britain-USSR Association.* Mr A. W. Cleeve Barr [F].

**Membership.** The following members were elected: as Fellows 13; as Associates 62.

**Students.** 61 Probationers were elected as Students.

**Applications for Reinstatement.** The following applications were approved: as Associates: John Herbert Balmforth, John Donaldson Brown, Charles Edwin Collyer, Leslie Lionel Cooper, James William Hills, Victor Henry Loney, John Brian Shelley; as Licentiate: Llewellyn Omar Leo Hannen.

**Obituary.** The Secretary reported with regret the death of the following members: Ernest George Cole [F], Alfred Stanley Gasson [F], Walter Hinde Godfrey, CBE, FSA [F], Robert Sharpe Hill [F], Harry Peter Hing [F], Francis Oliver Marchant, MC [F], Charles Warren Neil [F], George Frederick Thomas [F], Harold G. Cherry [Retd F], Alexander Buchanan Gardner [Retd F], Alexander William Douglas Reid [Retd F], William Fleming Wilkie [Retd F], Frank George Geary [A], Colonel Roland Wood, TD [A], Arthur Richard Alfred Blay [L], Peter Connor [L], Herbert Alexander Furness [L], Leslie Prior Hale [L], Joseph Slater Refitt [L], Arthur James Stafford [L], William Pinckard Delane Stebbing, JP, FSA [L], Bernard Strachan Pullan [Retd L], Albert George Smith [Retd L], Richard Percy Timbs [Retd L], Eric Reginald Stanley Closs [Student].

By resolution of the Council the sympathy and condolences of the Royal Institute have been conveyed to their relatives.

Beech: Malcolm John, AADipl., Chelmsford.  
Brady: Dermot Damien O'Connor, BArch. (NUI Dublin), Kuala Lumpur, Malaya.  
Bullement: Alan Lewis, Dip.Arch.(Manchester), Cheadle Hulme.  
Cash: Donald, BArch.(McGill), Baie D'Urfe, Quebec, Canada.  
Chiu: Wallace Peter, BArch.(McGill), Hong Kong.  
Chng: Heng Tat, BArch.(Melbourne), Singapore.  
Clouter: Walter John, Accra, Ghana.  
Coote: Daniel James, BArch.(Natal).  
Crocker: William Charles, DArch.(Kingston), Epsom.  
Cunningham: Allen, BArch.(L'pool), Brooklyn, New York, NY, USA.  
Dibb: Maurice George, BArch.(Natal), Natal, South Africa.  
Dodd: Ian Henry, DA(Edin.), Selkirk.  
Doveton: Keith, Dip.Arch.(CT), Cape Town, South Africa.  
Final: Frank Gilbert, Toronto, Ontario, Canada.  
Grewal: Bhagwant Singh, Dip.Arch.(Birm.), Nairobi, Kenya.  
Hallen: Hans Heyerdahl, Dip.Arch.(Natal), Durban, South Africa.  
Harvey: Frank Bryan, AADipl.  
Heng: Heah Hock, MA, Dip.Arch.(Cantab.), Singapore.  
Herbert: Lynden, AADipl., Newport, Mon.  
Highest: William Gilchrist, DA(Glas.), Larne, Co. Antrim.  
Holshausen: Colwyn George, Cape Town, South Africa.  
Kagan: Nathan, BArch.(CT), MArch.(Yale), Bulawayo, Southern Rhodesia.  
Khoo: Raymond Tiang Thye, Dipl.Arch. (Kingston), Penang, Malaya.  
Krengel: Solly, BArch.(Rand), Johannesburg, South Africa.  
Lewis: (Mrs) Alexandra, Dip.Arch.(The Polytechnic), Port-of-Spain, Trinidad.  
Macadam: George Millar, DA(Glas.), Toronto, Ontario, Canada.  
MacCallum: Charles Hugh Alexander, DA (Glas.), Glasgow.  
McWhirter: William Ewing, Dip.Arch.(Abdn), Aberdeen.  
Mahmood: Hamzah Bin, Dip.Arch.(Manchester), Kuala Lumpur, Malaya.  
Marais: Willem Schalk, Dip.Arch.(Pretoria), Durban, South Africa.  
Max-Jarabek: Jan.  
Meiring: Jacobus Wouter Henri, BArch. (Rand), Cape Town, South Africa.  
Niven: Douglas Malcolm Goodwin, DA(Edin.), Glasgow.  
O'Mahony: Richard Stephen, BArch.(L'pool), Formby, Lancs.  
Oldham: Denys James Michael, BArch. (Auck. NZ), Gisborne, New Zealand.  
Owen: John Ceredig, Dip.Arch.(Wales), Cardiff.  
Peckham: George Edward Justin, Durban, South Africa.  
Pettigrew: Maurice William Irwin, DA(Edin.), Portadown, County Armagh.  
Polak: (Miss) Renata Helena, AADipl., Croydon.  
Ravenscroft: Michael John, Dip.Arch.(CT), Cape Town, South Africa.  
Rhodes: Derek Harold, BSc.(Arch.)(Glas.).  
Scrimgeour: George Robert, BArch.(CT), Salisbury, Southern Rhodesia.  
Smith: Colin Louis Melville, MArch.(Harvard), AADipl., Cambridge, Mass., USA.  
Smith: Peter Paul, Salisbury, Southern Rhodesia.  
Spark: David Manson, BArch.(Dunelm), Tynemouth.  
Stokes: Colin James, AADipl., Goring-by-Sea.  
Tan: Kong Hong, Dip.Arch.(RWA), Kuala Lumpur, Malaya.  
Taylor: David Anthony, DA(Edin.), Edinburgh.  
Taylor: Donald Michael, BA, Dipl.Arch. (Natal), Durban, South Africa.  
Taylor: Robert Lindsay, Dip.Arch.(Auck.NZ), Lower Hutt, New Zealand.  
Ten: Yen Wee, Dip.Arch.(Manchester).  
Thornburrow: David Alfred, BArch.(L'pool), Hong Kong.  
Toft: Philip Michael, BA(Arch.)(Sheffield), Rotherham.  
Tucker: Peter James, Dip.Arch.(The Polytechnic), Torquay.  
Vincent: Ivan, BArch.(CT), East London, South Africa.  
Wellbeloved: Ernest Trevor, BArch.(Rand), Johannesburg, South Africa.  
Wright: Gordon McDonald, Dip.Arch.(Auck. NZ), Auckland, New Zealand.

## Membership Lists

### ELECTION: 3 OCTOBER 1961

The following candidates for membership were elected on 3 October 1961.

#### AS FELLOWS (13)

Belfer: Sidney Lionel.  
Egan: John Edward, Cape Town.  
Felely: Francis Eugene, Zetland, Sydney, Australia.  
Griffiths: William Balcombe, MC, BArch. (Melbourne), Melbourne, Australia.  
Haydon: Ronald Hubert, Dip.TP, Dip.Arch. (The Polytechnic).  
Hinton: Denys James, AADipl., Leamington Spa.  
Lyell: Michael George Rudinge, AADipl.  
MacFarlane: Robert Alexander Cameron, Wrexham.  
Morel: Herbert Stanley, AADipl., Westerham.  
Norris: Kenneth Victor, Birmingham.

Pigott: Michael Mountford.

Toogood: Geoffrey Roger, Dipl.Arch. (Northern Polytechnic), Croydon.

and the following Licentiate, who is qualified under Section IV, Clause 4(c) (ii) of the Supplemental Charter of 1925:

Begley: William Walter.

#### AS ASSOCIATES (62)

Adithiya: Lankalalama Arunasiri, AADipl., Colombo, Ceylon.  
Ajayi: Samuel Andrew, AADipl., Ibadan, Nigeria.  
Bargh: John Geoffrey, MA(Cantab), BArch. (Manitoba), BSc.(Eng.)(Nottm), Dip.TP (Glas.), Kendal.  
Barnes: Maurice James, ASTC(Arch.), Karachi, Pakistan.  
Beard: Alexander Ewan, Dip.Arch.(Auck. NZ), Lower Hutt, New Zealand.



## ELECTION: 12 DECEMBER 1961

An election of candidates for membership will take place on 12 December 1961. The names and addresses of the candidates found by the Council to be eligible and qualified in accordance with the Charter and Bye-laws, with the names of their proposers, are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary, RIBA, not later than Friday 17 November 1961.

The names following the applicant's address are those of his proposers.

### AS FELLOWS (5)

**Cheek: Alfred Cyril**, Chantry House, 1 West St., Andover, Hants. Frederick Henshaw and applying for nomination by the Council under Bye-law 3(d).

**Fairhurst: Harry Marshall**, MA(Cantab.), Dipl.Arch.(Northern Polytechnic), 55 Brown Street, Manchester 2. P. Garland Fairhurst, Francis Jones, Sir Hubert Worthington.

**Fraser: Richard**, DA(Edin.), 12 Baring Crescent, Exeter. Louis de Soissons, Kenneth Peacock, D. M. Hodges.

**Hodges: Michael Sydney**, Dipl.Arch.(UCL), Messrs Percy V. Burnett and Partners, 12 Bloomsbury Square, W.C1. Donald Macpherson, William Kaula, G. H. Fielder.

**Lindsay: Arthur**, ASTC(Arch.), 22 Windsor Road, Formby, Lancs. Sir Basil Spence, W. C. Young, Anthony M. Chitty.

### AS ASSOCIATES (26)

**Abbott: Anthony James**, Dip.Arch.(Wales), 62 Lynton Road, Hillside, Southport, Lancs. Lewis John, Johnson Blackett, C. F. Bates.

**Ahrends: Peter**, AADipl., Ahrends, Burton and Koralek, 13 Goodwins Court, WC2. Arthur Korn, Philip Powell, Hidalgo Moya.

**Arton: Iain Duncan**, DA(Glas.), 20 Third Gardens, Glasgow, S1. Applying for nomination by the Council under Bye-law 3(d).

**Barlow: David**, BArch.(L'pool), Nigel Biggar and Partners, 18 Parade Road, St Helier, Jersey, CI. Prof. R. Gardner Medwin and applying for nomination by the Council under Bye-law 3(d).

**Bennett: Keith Charles Hugh**, DArch. (Kingston), 13 Compton Road, Wimbledon, SW19. J. W. A. Cubitt, E. Maxwell Fry, Miss Jane B. Drew.

**Butler: John Anthony**, DArch.(Kingston), 35A Breech Lane, Walton on the Hill, Tadworth, Surrey. E. D. Jefferiss Mathews, A. G. Nisbet, O. D. Pearce.

**Cameron: William Fraser**, DA(Glas.), 12 Baker Street, Glasgow, S1. Applying for nomination by the Council under Bye-law 3(d).

**Chan: Pak Keung**, AADipl., c/o The Architectural Association School of Architecture, 34-36 Bedford Square, W.C1. Arthur Korn, Anthony Cox, Leo De Syllas.

**Chick: Anthony John Philip**, 1 Silver Street, Maldon, Essex. S. E. Bragg, Leo De Syllas, Anthony Cox.

**Crompton: Dennis**, Dip.Arch.(Manchester), 50 The Boulevard, St Annes on Sea, Lancs. Prof. R. A. Cordingley, Eric S. Benson, Hubert Bennett.

**Heaslip: Thomas Beattie Wylie**, Dip.Arch. (Abdn), c/o Messrs W. and M. Given, 1 Water-side, Coleraine, Co. Londonderry, Northern Ireland. F. W. Honeywell, E. F. Davies, Noel Campbell.

**Holderness: James**, Dip.Arch.(Manchester), 641 Blackpool Road, Preston, Lancs. John Watt, George S. Pester, U. Aylmer Coates.

**Humphreys: Kenneth Frederick John**, Dipl. Arch.(Northern Polytechnic), 27 Furrowfelde, Woodlands, Kingswood, Basildon, Essex. C. G. Bath, Sidney F. Burley, J. E. Moore.

**Hurley: Robert Thomson**, DA(Edin.), 3 Chichester Street, Dolphin Square, SW1. Hubert Bennett, Edwin Williams, K. L. Sharpe.

**Liebsman: (Mrs) Maria**, c/o Bank of New South Wales, 47 Berkeley Square, W1. Prof. H. Ingham Ashworth, Prof. F. E. Towndrow, D. K. Turner.

**Morgan: William Vernon**, Dip.Arch.(Wales), 'S'Agaro', Melville Avenue, St Mellons, Cardiff. Johnson Blackett, C. F. Bates, Lewis John.

**Parke: Benjamin William**, Dipl.Arch. (Northern Polytechnic), 2 Lubbards Close, Rawreth Lane, Rayleigh, Essex. S. G. Lawrence, C. G. Bath, J. E. Moore.

**Parker: John**, BA(Arch.)(Manchester), 50 Brandon Avenue, Heald Green, Cheshire. H. T. Seward, Prof. R. A. Cordingley, Eric S. Benson.

**Phillips: Maurice Christopher**, Dip.Arch. (Manchester), 88 Archway Road, N19. Prof. R. A. Cordingley, Eric S. Benson, Miss Nadine Beddington.

**Preston: Derek Roxby**, Dip.Arch.(Auck. NZ), 90 Kensington Park Road, W11. E. Maxwell Fry and applying for nomination by the Council under Bye-law 3(d).

**Rankin: George Drummond**, DA(Edin.), 27 Tregunter Road, SW10. Applying for nomination by the Council under Bye-law 3(d).

**Sikorska: (Mrs) Irena**, 54 Drewstead Road, SW16. Sir Thomas Bennett, Morris L. Winslade, P. H. P. Bennett.

**Smith: George Baxter**, Dip.Arch.(Abdn), 32 Corrie Gardens, Muir of Ord, Ross Shire. E. F. Davies, D. J. A. Ross, D. W. Innes.

**Stirling: Duncan Campbell**, BA(Dundee), 'Gowan Lea', Carslogie Road, Cupar, Fife. Chessor Matthew, W. S. Gauldie, A. F. S. Wright.

**Thompson: Nicholas**, Dipl.Arch.(Oxford), 12 Hansard Mews, W14. Andrew Renton and applying for nomination by the Council under Bye-law 3(d).

**Wright: Robert**, DA(Edin.), 23 Denfield Avenue, Cardenden, Fife. R. Forbes Hutchison, J. Holt, W. G. Dey.

## ELECTION: 6 FEBRUARY 1962

An election of candidates for membership will take place on 6 February 1962. The names and addresses of the overseas candidates found by the Council to be eligible and qualified in accordance with the Charter and Bye-laws, with the names of their proposers, are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary, RIBA, not later than Tuesday 30 January 1962.

The names following the applicant's address are those of his proposers.

### AS FELLOWS (3)

**Carruthers: Alan John**, DA(Glas.), c/o Architectural Dept, Commonwealth of Australia, Dept of Works, Sydney, NSW, Australia. J. Athol Richardson, C. Ross MacKenzie, J. J. M. van Heerden.

**de Giorgio: Roger**, 20 Kingsway, Valletta, Malta. Applying for nomination by the Council under Bye-law 3(d).

**Lockerbil: James Nisbet**, City Architect and Building Surveyor, c/o PWD Building, High Street, Singapore. W. Irving Watson, F. M. Howrie, J. Kirkwood.

### AS ASSOCIATES (14)

**Bowie: Charles Annandale**, BA(Arch.)(CT), PO Box 13, Ficksburg, O.F.S. South Africa. Prof. L. W. Thornton White and applying for nomination by the Council under Bye-law 3(d).

**Chan: Khay Beng**, BArch.(Melbourne), 144 Ampang Road, Kuala Lumpur, Malaya. R. S. Demaine, Prof. Brian B. Lewis, R. G. Parker.

**Drew: Michael John**, AADipl., Potter House, Aspen, Colorado, USA. Arthur Korn, Anthony Cox, Michael Rosenauer.

**Glossop: Darcy Charles**, 18 Highland Road, Titirangi, Auckland, SW4, New Zealand. Prof. C. R. Knight and the President and Hon. Secretary of the NZIA, under Bye-law 3(d).

**Goh: Joseph Soon Lip**, BArch.(Melbourne), 3 Makepeace Road, Singapore 9. Prof. Brian B. Lewis, Mrs Hilary Lewis, R. G. Parker.

**Ho: Kum Kee**, BArch.(Melbourne), 420 Macpherson Road, Singapore 13. Prof. Brian B. Lewis, R. G. Parker, Mrs Hilary Lewis.

**Lehmann: Paul James**, BArch.(Melbourne), 'Boondilla' Private Bag, Geelong, Victoria, Australia. John F. D. Scarborough, Prof. Brian B. Lewis, Mrs Hilary Lewis.

**Norman: Gordon Leslie Goran**, c/o Rhodesia Railways, PO Box 604, Bulawayo, Southern Rhodesia. Ian D. Mac Gillivray, C. Ross MacKenzie, and applying for nomination by the Council under Bye-law 3(d).

**Oey: Han Tiong**, BArch.(Melbourne), 4 Goodman Road, Singapore. Prof. B. B. Lewis, R. G. Parker, Mrs Hilary Lewis.

**Pedersen: Bryon Charles**, BArch.(Melbourne), 86 Ormond Road, East Geelong, Victoria, Australia. Prof. Brian Lewis, R. G. Parker, Mrs Hilary Lewis.

**Rosenthal: Kenneth George**, 14 Mill Street, Perth, Western Australia. Mervyn Parry, O. V. Chisholm, K. C. Duncan.

**Thomas: Donald Leigh**, Dip. Arch.(Wales), 3750 West 11th Avenue, Vancouver 8, BC, Canada. Lewis John, Peter M. Thornton, D. W. Lichtensteiger.

**Tong: Alan Kok Mau**, BArch.(Sydney), 19 Meru Road, Klang, Malaya. Prof. H. Ingham Ashworth, Eric Taylor, Samuel Lipson.

**Williams: Arthur Colin Brooke**, Dip.Arch. (Manchester), 73 Grange Road, Colonel Light Gardens, Adelaide, South Australia. Prof. R. A. Cordingley, R. Hellberg, M. G. Gilling.

## Members' Column

This column is reserved for notices of changes of address, partnerships vacant or wanted, practices for sale or wanted, office accommodation, and personal notices other than of posts wanted as salaried assistants for which the Institute's Employment Register is maintained.

### APPOINTMENTS

**Mr M. J. Bacon**, MCD, BARCH., AMTPI [4] has relinquished the post of Director of Planning and Secretary-Treasurer of the Township of Toronto Planning Board to join the firm of Messrs Proctor and Redfern, civil and consulting engineers, 75 Eglinton Avenue East, Toronto 12, Canada, as Planning Associate.

**Mr George Lewis Edwards** [4] has now taken up his appointment as County Architect to Radnorshire County Council, County Hall, Llandrindod Wells, and he would be pleased to receive trade catalogues and technical literature.

**Mr H. C. Fallek** [4] has been appointed Assistant Chief Architect, with duties of Acting Chief in charge of the Architects' Department, Ministry of Public Works and Communications, PO Box 384, Addis Ababa, Ethiopia.

**Mr Jack Leith** [L] has been appointed architect to John Smith's Tadcaster Brewery Co. Ltd, The Brewery, Tadcaster, Yorks, consequent upon the retirement on 30 September 1961 of Sir Bertram Wilson, FRICS [L].

**Mr J. M. Milner**, AMTPI [4] has been appointed Borough Architect and Planning Officer to Macclesfield Borough Council as from 25 September 1961. He succeeds Mr E. A. Heppenstall [4] who has been appointed City Architect at Lancaster. Mr Milner's address is 3 Jordangate, Macclesfield, Cheshire.

**Mr F. Silvester White**, AMTPI, ARICS [4] has retired from the Colonial Service and from his appointment as Commissioner for Town Planning to the Government of Tanganyika, and he has taken up the newly created post of Burgh Architect and Town Planning Officer with the Corporation of Greenock, Scotland. His address is Municipal Buildings, Hamilton Street, Greenock, Scotland.

### PRACTICES AND PARTNERSHIPS

**Mr S. T. Baker** [4] has opened a new office at 52 High Street, Guildford, Surrey.



Mr K. A. W. Clare [A] has joined Design Partnership, 12 Guildhall Street, Preston, Lancs.

Messrs Crouch, Butler and Savage (Mr C. Stanbury Madeley [A] and Mrs M. Enid Moss) and Messrs Hitchman and Walker (Mr G. L. V. Walker [A] and Mr K. F. Hitchman, DIP. ARCH. (Birm.)) announce that they have merged their two practices, and will continue under the style of Messrs Crouch, Butler and Savage at 22 Masshouse Lane, Birmingham 5.

Messrs Hendry Cuthbert [A] and Kenneth W. Towell [A] have entered into a joint partnership, practising under the name of Cuthbert and Towell at Stubbs Chambers, 15 Fold Street, Bolton, Lancs (Bolton 28144).

Messrs. Norman G. Denham and Partners [LL] of Winchester and Salisbury have recently opened an office at 1a Essex Lodge, Worthing Road, Basingstoke, Hants, where they will be pleased to receive trade catalogues and up-to-date technical literature.

Mr R. H. Dolan [A], while maintaining his office at 36 Kenwood Drive, Walton-on-Thames, Surrey (Walton 26980), has opened an office at 81a Chertsey Road, Woking, Surrey (Woking 3891-2). Mr P. D. Hunt [A] is the associate in charge. The firm will be pleased to receive trade literature at the new address.

Messrs Emberton, Franck and Tardrew [A] have opened additional offices at 20 Arcade Chambers, Bognor Regis, Sussex, where they will be pleased to receive trade literature.

Messrs Gunton and Gunton [F/A/L] have taken into partnership Mr M. Field, DIP. ARCH. (LCL) [A] and Mr P. A. Collinson [A].

With effect from 1 October 1961 the partnership between Mr E. P. Lambert [L] and Mr W. R. N. Oliver [L], in the firm of Lambert and Oliver, 35 South Street, Bridport, Dorset, has been discontinued. Mr Lambert will continue to practise as formerly.

Mr R. Peter Lucas [A] announces that, following the death of his partner Mr O. H. H. Nuttall [F], he has taken into partnership Mr Derick W. Ingram [A]. As from 1 October 1961 the style of the practice has been changed from Nuttall, Lucas and Partners to Lucas, Ingram and Partners, Austin House, South Bar, Banbury, Oxon.

Mr J. E. March [A] has withdrawn from partnership in the architectural practice of Messrs Spence, Robinson and Partners [F/A]. Hong Kong, as from 30 June 1961. His address is now 6 Worcester Crescent, Bristol 8.

Messrs W. H. Nesbitt and G. Davies [A] are pleased to announce the opening of their own office for the practice of architecture, to be known as Nesbitt and Davies, 18 Owne Street, Barrie, Ontario, Canada.

The partnership between Mr Robert George Philip Nunan [A] and Mr Derek Howard Matthews [A] formerly carried on at Bridge Cottage, Amporn, Hants and Ryswyck House, 130a High Street, Amersham, Bucks, under the name and style of Robert Nunan and Associates has been dissolved with effect from 10 September 1961. Mr Robert G. P. Nunan and Mr Derek H. Matthews will each continue to practise on his own account at the respective addresses above.

Mr Tom Ralph [A] is in practice at 40 Sandford Avenue, Church Stretton, Salop where he will be pleased to receive trade literature.

Mr David O. Searle [F] and Mr John C. H. Odum [A] have mutually agreed to dissolve their partnership as from 30 September 1961, following the loss of their former senior partner, the late Mr Eric C. Kent [A]. Mr Searle will be joined in partnership by Mr Dennis R. F. Row [A] and Mr Lloyd A. Smith, AADIP. [A], and will practise from 2 South Square, Gray's Inn, London, WC1 (Holborn 0864) under the style of Searle, Row and Smith. Mr Norman O. Searle [A] will remain as consultant to the firm. Mr Odum will be joining Mr Derek A. Wren [A]

in partnership at 105 Newington Causeway, London, SE1 (Hop 7589), and they will practise under the style of Odum and Wren.

Mr Anthony Selman [A] has opened a branch office at the Louis Bayley Building, Shepherd Street, Bridgetown, Barbados, West Indies, where he will be pleased to receive trade literature.

Mr H. D. Watkins [A] and Mr G. P. Thomas [A] have entered into partnership and are practising at 30 Commercial Street, Newport, Mon., under the style of H. D. Watkins and Thomas. They will be pleased to receive trade catalogues, etc.

## CHANGES OF ADDRESS

Mr Patrick Bishop [A] has changed his address to 'Hall Bank', Woodville Road, Bowdon, Altrincham, Cheshire (Altrincham 2188).

Mr Michael Bowley [A] has changed his address to 201 Bath Street, Glasgow C2 (City 7790).

Mr D. L. Boyman [A] has changed his address to 11 Warminster Drive, Sheffield 8, Yorkshire.

Mr G. R. Browne [A] has changed his address to 33 Beverley Road, Leamington Spa, Warwickshire.

Mr Ian A. Davidson [A] has changed his address to 4 Blacket Place, Edinburgh 9.

Mr R. Gordon Dickinson [A] has changed his office address to 5 Whitegate Drive, Devonshire Square, Blackpool (Blackpool 33261) as from 25 September 1961.

Mr Frederick Hill, AMPTI, FILA [F], has changed his London office address to 180 Fleet Street, EC4 (Holborn 3546).

Mr J. T. Hirst [A] has changed his address to 11 New Way Road, Evington, Leicester, as from 1 October 1961.

Miss Jennifer C. Hodgson [A] has changed her name and address to Mrs J. C. Habib, c/o Dr Habib, Burroughs, Welcome and Co., D/43 SITE, Karachi 16, Pakistan.

Mr John H. Innerdale [A] has changed his address to 'Winspit', Babylon Way, Ratton Manor, Eastbourne, Sussex.

Mr Jack Kinnair [A] is now in practice at 18 Old Compton Street, London, W1 (Gerrard 4250).

Mr Bernard Lowe [L] has moved his office to 15 Linden Road, Clevedon, Somerset (Clevedon 3371).

Mr Noel Moffett [A] has moved his office to 6a Bedford Square, London, WC1 (Museum 6686).

Mr Alexander Morrison [A] has changed his address to Top Flat, 10 Friar Gate, Derby.

Messrs Norman and Dawbarn [F/A/L] have moved their offices to 234 Stockwell Road, London, SW9 (Redpost 3131-8).

The address of The Reverend Kenneth Edward Thornton Nugent, SJ [A] is now Heythrop College, Chipping Norton, Oxon.

Mr Joseph Robotham [A], having taken up an appointment with the Borough Architect, Northampton, has changed his address to 71 Denmark Road, Northampton.

Messrs Stone, Toms and Partners [FF/L] have moved to new offices at 11-15 Farm Street, Mayfair, London, W1 (Mayfair 6363), where all communications should be forwarded.

The office address of Mr C. D. Taylor [L] is Mount Pleasant, Robin Hood's Bay, Whitby, Yorkshire.

Mr Douglas Taylor [F] has changed his office address to 45 Whitehall, London, SW1 (Whitehall 2742).

Mr Alan N. Watson [A] has changed his address to 12 Charlton Road, Shepperton, Middlesex.

## PRACTICES AND PARTNERSHIPS WANTED AND AVAILABLE

Associate (60), small-town and country practice in south-west coastal belt, expanding, but at present too limited in scope, finds 'one-man-band' situation wearing and frustrating. Would like to join in association or partnership with growing progressive firm further inland. Box 313, c/o Secretary, RIBA.

Associate, aged 34, ten years' experience in architecture and city planning, currently a senior assistant in an internationally famous American firm, seeks associateship, partnership or position leading thereto, with London firm, preferably engaged in work at home and abroad. Capital available. Box 314, c/o Secretary, RIBA.

Associate with wide experience in own small practice in London and good connections with local authorities, would consider amalgamation with or senior position in, with a view to partnership, a more established practice. London or home counties areas preferred. Capital available if required. Box 315, c/o Secretary, RIBA.

Associate, AADIP., over 20 years as chief architect with wide and varied experience, particularly on industrial side in connection with engineering, technical services and plant, seeks partnership or responsible position leading to one in London or home counties. Some capital available. Box 317, c/o Secretary, RIBA.

## ACCOMMODATION

Associate member has office available, suitable for architect or surveyor, Leicester Square area, reasonable rent. Box 316, c/o Secretary, RIBA.

*The Royal Institute of British Architects, as a body, is not responsible for the statements made or opinions expressed in the JOURNAL.*

# ABS

## Health and Income

Good health is part of the professional man's capital, and disablement due to accident or sickness is soon reflected in his income. If he is unable to work for an extended period his income may cease altogether.

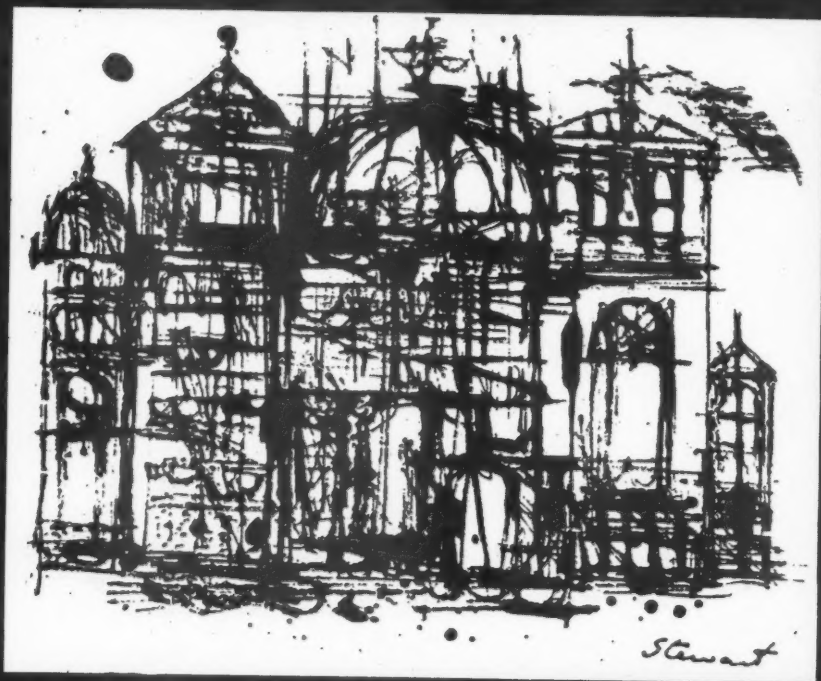
Insurance of course cannot prevent or ward off illness or accident, but a member of the 'Non-Cancellable' Group Scheme receives an income if he is unable to work – an income which continues so long as he is disabled – if necessary until the policy ceases at age 65. No matter what claims are made the benefits may not be restricted or the premium increased by the insurance company.

The Group Policy arranged with the leading company in this field offers cover at lower rates of premium than for individual policies. The scheme is open to architects and their assistants.

Please address inquiries to:

The Manager,  
ABS Insurance Agency Ltd,  
66 Portland Place,  
London, W1  
(Telephone: Langham 5533)





## ABS

### Christmas Cards

1961

This year the ABS Christmas Card Committee have endeavoured to produce cards which are related to architecture as well as to the festive and religious nature of Christmas.

**LARGE CARD A:** 'Montage' is a design by David Rock [A] based on the Church of the Holy Sepulchre in Jerusalem. The 'Montage' incorporates parts of old and new buildings as well as Christian symbols and lettering, all printed in dark red on a gold card. The card is 8½ in. by 5½ in., price 1s. 6d. (illustrated on cover).

**CARD B:** 'Church' is a free brush drawing by Robert Stewart printed in golden brown on a light mauve, card 6 in. by 5 in., price 1s.

**CARD C:** 'Medallion' is a spot note for a measured drawing

by David Rock. The medallion showing the Virgin Mary and St Michael is one of six on the tomb of Henry VII in Westminster Abbey by Torrigiano, one of the first Renaissance designs in England. The drawing is printed in dark purple on white, price 6d.

All the cards have Christmas greeting printed in colour on the inside in a modern type face. Envelopes are included in the price. Cards A and B can be overprinted with names and addresses at an additional cost of £1 10s. per 100 or part of 100, and £1 for each further 100; the minimum number that can be ordered with the overprinting being 50. Cards are available from the Architects' Benevolent Society, 66 Portland Place, London, W1, but orders for overprinting should be received by the end of November.



# Practice Notes

## PRACTICE QUERIES

### 1. Code of tendering procedure

**Q:** One of the tenders which my client has received from a firm of builders contains a number of errors in pricing which are substantial enough to alter its position in the order of tenders. Can you tell me how I should approach this case before I advise my client which tender to accept?

**A:** The Code of Procedure for Selective Tendering, published by the Joint Consultative Committee of Architects, Quantity Surveyors and Builders (obtainable from the Secretary, RIBA, price 2s.) lays down (paragraph 14) a method by which errors in pricing may be corrected before the builder's offer is accepted. This would not affect the tender figure but would allow for a realistic valuation of variations. It should in fact be a condition of tender that such errors be adjusted in accordance with the Code.

The Code advises on most matters relating to tendering including the preparation of the list of tenderers. It is a *sine qua non* for all firms of architects.

### 2. Payments to nominated sub-contractors

**Q:** A nominated sub-contractor, whose work, under the contract for which I am the architect, was long ago finished in an early stage of the contract, is pressing for his final payment. I am not in a position to certify the final payment to the main contractor because the Defects Liability Period has not yet elapsed. Is there any way in which I can arrange for the final payment to the sub-contractor in such a case?

**A:** Clause 21(d) of the RIBA Form of Contract enables the architect to secure final payment to any nominated sub-contractor before final payment is due to the main contractor. The conditions under which such payment would be certified are that the nominated sub-contractor has satisfactorily indemnified the main contractor against any latent defects. The architect may then include such final payment in a certificate to the main contractor, and he must pay the nominated sub-contractor less only a cash discount of 2½ per cent. The limit of the retention fund is then reduced in proportion to the amount so certified and the main contractor is relieved from all liability except for any latent defects.

Though the procedure under this clause is a matter for the architect's discretion, there are, no doubt, many cases in which it would be proper to adopt the procedure, as it does not render the employer in any way liable to the nominated sub-contractor.

### 3. Directors of building contracting companies

**Q:** I have been invited to become a director of a firm of building contractors. Is this still prohibited?

**A:** Members of the RIBA are expressly forbidden to become directors of building contracting firms or companies under Clause 5(b) of the current Code of Professional Conduct.

## Forms of Agreement between architect and client

When an architect accepts a commission he should make sure that his client fully understands his obligations when he employs an architect, not only concerning fees, but also other matters.

To make the architect's position as watertight as possible, the RIBA have now published revised Forms of Agreement between architect and client. The new forms cover all types of work and touch on the terms of the architect's employment, his fees, the appointment of the quantity surveyor, the engagement of consultants and of clerks of works, and the preparation of the details of final accounts to satisfy public authority requirements as well as providing for the occasion when the architect is unable to continue to act, and for the settlement of disputes between architect and client by arbitration.

The revised forms are of three types:

- (i) for general use between a building owner and architect or firm of architects;
- (ii) for repetitive housing work (in which case the special application of the RIBA Scale of Charges is used), and
- (iii) for use in cases where the architect is appointed as a result of an architectural competition.

The Forms of Agreement are obtainable on application to the Secretary, RIBA, price 1s. each, excluding postage.

## Refreshment Breaks

The Executives of the National Federation of Building Trades Employers and of the National Federation of Building Trades Operatives issued the following statement on refreshment breaks in the industry.

1. In the negotiations which led up to the January settlement of the National Joint Council for the Building Industry on wages and working hours, agreement was reached between the Employers and Operatives on the need for achieving so far as possible in the reduced 42 hour week the same level of output as in the 44 hour week. Both sides appreciated that it would be against the interests of all concerned in the industry if the increase in costs involved in the settlement were not offset to some extent at least by an improvement in productivity.
2. This was the background to the decision

to include in the January settlement the change in the working rule on refreshment breaks.

3. Under the new rule it is left to the management and operatives on each site and in each shop to make their own arrangements for refreshment breaks.

4. It follows that in the absence of an agreed site or shop arrangement neither side can claim or enforce formal breaks other than the break for dinner. It also follows that where arrangements have been properly agreed on sites between employers and operatives – including arrangements for formal breaks for tea under the rule – there must be no interference from organisations on either side to upset them.

5. On the other hand, where circumstances permit and it is agreed at the site or shop, the taking of tea need not involve a formal break in production.

6. The interpretation of the revised rule has given rise to many misunderstandings and there have been stoppages of work. This advice is issued to provide a basis for an immediate resumption of work on all sites. Any further dispute must be referred to the joint machinery without stoppages of work.

7. Any outstanding questions of interpretation will be dealt with through the machinery of the National Joint Council for the Building Industry.

8. Finally, the national parties call on all concerned to apply this advice with the common sense and mutual goodwill and forbearance traditionally associated with the joint relations in the Building Industry.

The National Disputes Commission heard several cases on 11 October and they were all dealt with on the basis of an immediate resumption of work and a resumption of site negotiations applying the principles contained in the foregoing joint statement of the Executives of the NEFTE and NEFTO.

## Effects of Public Health Act, 1961

The Minister of Housing and Local Government has drawn the attention of local authorities in England and Wales to various provisions contained in the Public Health Act, 1961.<sup>1</sup> Among these provisions are power for him to make building regulations, new local authority powers over trade effluents and the incorporation in the general law of various provisions included in some private Acts promoted by local authorities. The Ministry of Health is to issue a separate circular on the sections of the Act which are concerned with the prevention and notification of disease.

The Minister has told local authorities that it will be some time before building regulations which except in the administrative County of London will apply to the whole of England and Wales and replace existing local authority bye-laws can be laid before Parliament and before a date can be appointed to bring them into force. For the present, building bye-laws will continue.

The Act, with the exception of the part dealing with building regulations and a section on the use of cleansing vehicles on footways, came into force on 3 October. Except for one minor provision the Act does not apply to London.

<sup>1</sup> Circular 46/61, Public Health Act, 1961. H.M. Stationery Office. Price 6d.







## POST CONGRESS TOURISTS IN EAST ANGLIA

King's Chapel was closed – all the college servants, we were briskly informed, were at Southend – our vintage coach ran a big end at the Dog and Duck (or was it the Gun and Partridge?) in wildest, flattest, wettest Cambridgeshire, miles from Newmarket and the July meeting, and hours from opening time. (How can one explain our licensing laws to thirsty Catalans, Colombians, Israelis, Swiss and Yugoslavs!) And yet, and yet, I honestly believe the whole two-day exercise was a huge success. Another coach materialised like Cinderella's, a gorgeous automotive dragon, a poem in chromium plate and scarlet and gold upholstery, with a massive pot of artificial roses over the dashboard and the most courteous and expansive of drivers. The rain stopped, our spirits rose, the tour proceeded, and everywhere our hosts were patient, attentive, interested, informative and tireless.

Cambridge, of course, had been our first stop. Here a leisurely but ingeniously planned walk had been contrived for our party by kind Cambridge architects by way of Queen's (including Sir Basil's new building), Cat's, King's (outside only!), the Senate House, Caius, Clare, Trinity Hall, Trinity, John's, the Round Church and the Backs, followed by lunch at the Garden House Hotel and our very reluctant departure. Next came Ely, and 20 minutes in the cathedral, eloquently addressed by a splendidly informed and enthusiastic verger.

Norwich, where we stayed at the Castle Hotel, was all enchantment. I spent much of my childhood in and about it, and no doubt clouds of sentiment and prejudice obscure my powers of judgement, sparse at

The party at Norwich under the guidance of the City Architect, Mr David Percival [A]. These impressions have been written in response to a request, following the publication of the notes on the IUA Tours in the September JOURNAL

any time, whenever I am there. All the same one does not need to be an ecclesiologist – Norwich has about 37 Medieval churches – to appreciate this place, the best of English provincial cities. As townscape, the pattern and grouping, the variety of texture, the colour and contrast of the buildings facing the market place have no equal in the British Isles and few rivals elsewhere. And Norfolk architects and their wives overwhelmed us with nicely calculated instruction and the most generous, spontaneous hospitality. It was tremendous fun and, I am certain, greatly appreciated by the visitors.

The return journey was inevitably something of an anticlimax. One has to be English, I suppose, to appreciate rural England on a wet afternoon. Still, there was plenty of lunch to be seen, some pieces of partridge, a pheasant or two near Brandon, a string of racehorses near Mildenhall, a fleeting view of the Jockey Club, a glimpse of Audley End, several of Harlow, a thousand of suburbia and, quite suddenly, Bart and Mankowitz country – Aldgate, the *Financial Times* building, the West End and parting, with vows – oh, the sincerest vows – of eternal friendship.

Postscript. The two hotels at Cambridge and Norwich which we encountered seemed really to be trying. The staff did not appear to mind when we were very late for our meals – and we always were. The bars had masses of ice, the service was friendly and unobsequious, the food fit for human consumption. Were we lucky? Or is the British hotel trade learning at last?

J. C. PALMES



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# Automation and Architecture

By Gordon Friesen, FACHA

A lecture sponsored by the Yerbury Foundation on 'Automation and Architecture', followed by a discussion, was given by Mr Gordon Friesen, at the RIBA on 1 June 1961.

The Chairman, Mr W. E. Tatton-Brown [4], Chief Architect to the Ministry of Health, welcomed Mr Gordon Friesen on behalf of the RIBA. He gave a brief outline of Mr Friesen's career; he had started in a bank, had been a hospital administrator, airman in the RCAF, Military Governor in West Germany, and since 1953 had headed his own firm of hospital consultants. He had 'more than 50 hospitals to his credit, either built or on the drawing board', and these had acquired an international reputation amongst hospital administrators and architects.

Mr Friesen began by saying that in his view most hospitals built today are 20 years out-of-date when they are opened because both clients and architects based their thinking on what has already been built; the whole problem needs to be rethought. 'What happens, unfortunately, in so many, many instances, is that we build the building and then we adjust the organisation to suit the building. In the United States, there is a fad now that we must, in some areas, build a hospital circular. What difference does it make whether it is circular, square or rectangular? It does not really matter, but let us develop our organisation and then put the roof over it, rather than build the building and then adjust the organisation to suit the building.'

He demonstrated that in the US 40 per cent of the capital cost of a hospital would be the operating cost for a year, and that 70 per cent of the running cost is taken up by salaries and wages. He thought that this would rise to 80 per cent in five years. 'The only reason I mention it is that we have not, in the design, taken into consideration the waste of man hours, which is tragic. In a hospital we design today, 50 per cent of the nurse's time is spent collecting supplies and services that she needs to give patient care for the rest of the time, and we take it for granted.'... 'If industry were to operate in the way that some of the hospitals do that I have visited, they would go bankrupt overnight.'

Mr Friesen then showed slides of hospitals in Los Angeles; El Paso, Texas; St Louis; Denver and Hamilton, Ontario. Not all these hospitals had double corridor ward plans; he emphasised that it was the organisation and not the form of the plan which is important. He poured scorn on the idea sometimes voiced that there were not enough skilled people in hospitals to operate mechanical devices. People could be trained and the only consideration should be the necessity of designing and installing the most efficient machinery to save handwork and walking wherever possible. Routine preventive maintenance, not duplication of machinery was the answer to those who were fearful of break-down. If, in spite of proper maintenance, there was a break-down, 'we could do the same as if it was the refrigerator in our own home: operate the hospital for three days as if the automation had not been there'.

All used material from every department in the hospital should be transported mechanically to a decontamination area in the service zone, mechanically washed and sterilised. Equipment now being designed would wash any item of equipment in a hospital automatically in six minutes. It was of no importance whether it was ordinarily 'dirty' or infected; it must all be treated as if it were infected, since no system of classification of 'dirt' was meaningful in a hospital situation.

Mr Friesen described some of his ideas on the functioning of a service area in a hospital (Fig. 1). 'We work on the concept that the linen will be wrapped in plastic material. It was interesting to see how the laundry was handled [at one

hospital]. One sheet was handled 16 times from the time it left the flat iron until it got to the patient's bedside. They were picking it up from the flat iron and putting it on the table and piling it in neat piles, taking it off the table, putting it on a cart, taking the cart down to the central linen room, taking it off the cart and putting it in the linen room, bringing another cart, taking it off the cart and putting it on another cart. Finally, it got to the patient's room. . . . It is terribly wasteful and uneconomical in every sense of the word.

'We suggest that we should have individually wrapped sets of two sheets and two pillowcases, etc., brought into the required area, the soiled linen being put into the plastic unit the clean had been in.

'It is then brought into the area for washing and the plastic disintegrates at 240°. There is no sorting of linen, no handling of soiled linen. How many times have I seen a nurse take a bundle of sheets and put them into a linen hamper; if there is such a thing as air-borne infection, we are asking for it. Again, the pillow slip is a highly infected piece of linen and I have often seen one split and become useless. . . . In a hospital, there is a skeleton staff of nurses on the job from midnight until 7 am, and when 7 o'clock comes, there is real confusion. Everyone is trying to use the elevator. Garbage is coming down, linen going up, doctors are trying to make their rounds. . . . There is no reason why all supplies should not be delivered between midnight and 7 o'clock. At the press of a button, it is automatically ejected in any sequence on any floor and eight trays can be sent a minute. We find we do not need a dumb waiter, it takes two people to operate it. Why should not we have something automatically ejected? Look at the man-hours involved. Many times I have seen things go up in the lift and there is no one there to remove them, so they come down again.

'There is a printing shop where all the forms used in the hospital are printed. Flowers are all delivered into one area, and mail. There is a dispatcher, responsible for receiving and distributing all the supplies. All the pharmaceutical requirements are suitably situated.'

He stressed the need to watch the minutest design details of equipment and furniture; he described trays which could be used for equipment storage, sterilisation in an autoclave and transport on trolley undercarriages; undercarriages which offered up equipment to processing machines at the right level; modular work benches with interchangeable blocks of draws, shelves or cupboards, which could be assembled in different ways to suit many patterns of work; transport and storage trolleys in which drawer and shelf arrangements could be altered easily.

Mr Friesen went on to discuss ward plans. 'Let us remember to put everything on the production line that the nurse or doctor needs but let us not put the patient on the belt. Let us make sure we consider the whole patient. Too often in the hospital we give lip service to the concept. When we give a patient a sedative at 10 o'clock at night and wake him up at 5.30 in the morning and give him a bed bath, are we thinking of the patient? When we give the patient meals at the times we do, we are making the patient adjust to our peculiar type of organisation.

'We should really and truly give more than lip service to the idea of building a building around the concept that we are really interested in the patient. On that basis, let us assume that we have the team approach to nursing, instead of having one person to do the medications and one person taking temperatures. That is putting the patient on the belt. Let us consider the whole patient.

'In the United States, we have as many as seven to ten



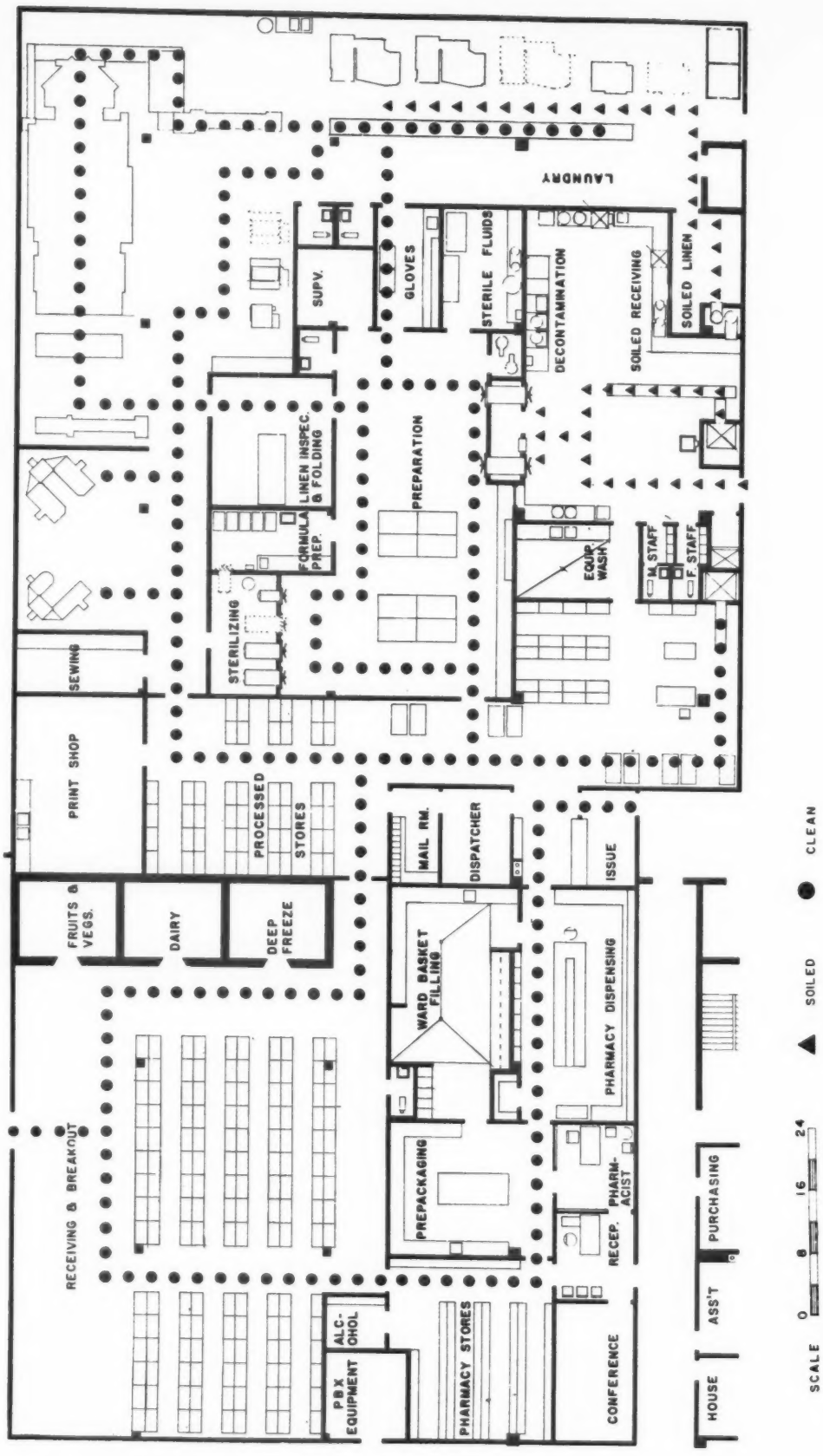


Fig. 1: RECEIVING, STORES, PROCESSING, DISPATCH DECONTAMINATION, STERILIZING, LAUNDRY, PHARMACY

R. E. Thomason General Hospital, Texas. Architects: Garland and Hilles Wm. H. Metcalf, Jr., Consultant Architect. Gordon A. Friesen Associates, Hospital Consultants

Fig. 2: 18

SOILED BAG



different classifications [of ward staff]. We have nurse aids, practical nurses, ward secretaries, ward leaders and we have created another one and call them hostesses.

"What is the nurse supposed to do? Let us get the nurse back to the patient's bedside. . . .

"Those of you who have travelled in the United States will appreciate from where I got the idea of having a server door, a door within a door. You put your suit in a door within a door and someone from the outside comes and picks up the suit without disturbing you, or returns it and does not disturb you. We call these nurse servers and we have a clean one and a soiled one (Fig. 2). What we are doing is logical; it is making sure that the nurse has at her disposal what she wants, where she wants it and when she wants it. She comes into the working area (the patient's room) and takes what she needs, does the dressing and puts the soiled things on the soiled side. It is obvious. Someone periodically comes from the outside and clears all the soiled materials. It should be done twice or three times a day and is a matter of organisation. If the supply she needs is not there, she presses a button, speaks to the supply technician and someone will deliver it, or she can press another button and speak to the dispatcher. At the moment, we have seven to ten different sources of supply in the hospital. If they want paper towels, they get them from one place, sterile supplies from somewhere else and oxygen tents from heaven knows where. We have got to make sure that it is so organised that the nurse can go from room to room all the time, giving efficient patient care. . . .

"There are showers in every room, w.c.s and two beds in every room (Figs. 3 and 4). You may disagree with this but we are doing it for flexibility. It is a matter of opinion. It is interesting, where the Federal Government have underwritten Blue Cross and it is all pre-paid insurance, there has been a terrific demand for private rooms. With this type of accommodation, we can take the bed out and make it a single room if the demand is there but it gives us greater flexibility. The shower may seem strange, but there is not a third-rate motel that has not got a shower. Why should standards change when they get to a hospital with early ambulation? Usually the nurse has to escort the patient to where the central showers are located. In this instance, the nurse can carry on in the room and does not waste time.

"We are more and more concerned about visitors with the normal family relationship, where the husband is invited to stay overnight or, if the daughter is ill, the mother is invited to stay. We must not lose sight of this, if we are to consider the mental as well as the physical aspect of the patient. I

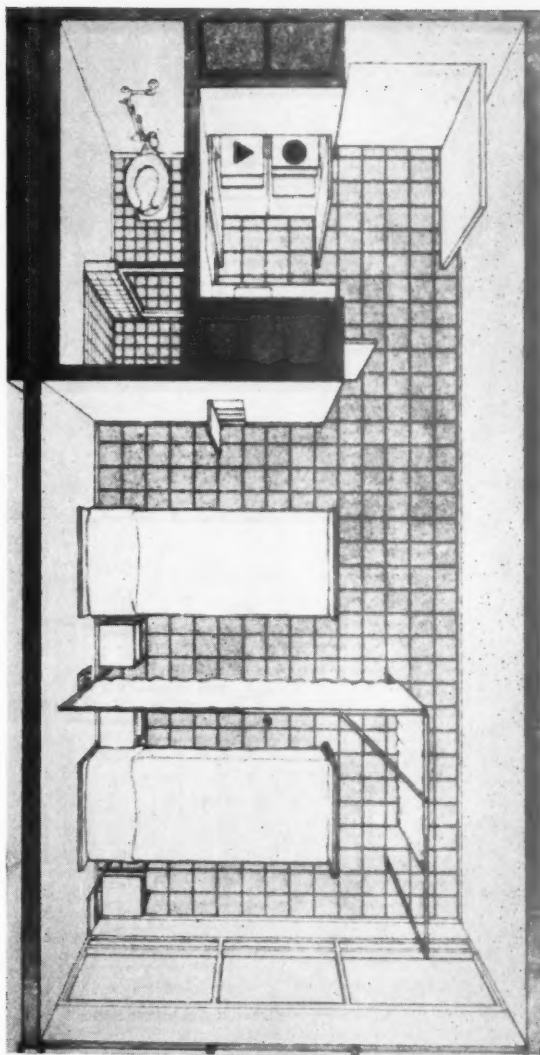
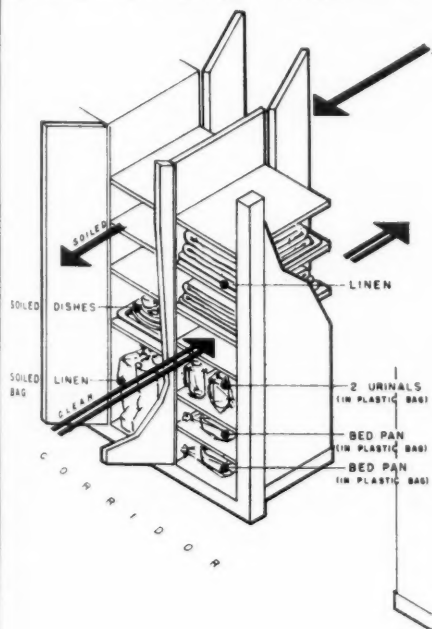


Fig. 3: One- or two-bed 'patients' room, including toilet and shower and service cabinet

Fig. 2: Isometric drawing of pass-through cabinets



remember an administrator who said on one occasion that as far as he was concerned, it would be Utopia if he could operate a children's hospital where they had visitors once a week. He should not be operating a hospital."

Mr Friesen then illustrated a number of items of hospital equipment which had been designed by his firm. These included a bedside table which could be used without alteration on either side of a bed; an over-bed light fitting giving upward light and an independently switched reading light; a charting system using punched loose sheets in a ring-binder; a cafeteria system with separate serving sections for each part of a meal to cut down queuing; a bedside baby cot combined with a locker; a pneumatic tube station, and a dish-washing unit. He concluded his paper: "Let us design the hospital in such a way that we really look after the patient."

"I hope I have been able to give you a little food for thought. Do not think that this is the only approach. I have tried to demonstrate a philosophy; we are not taking advantage of the technical know-how that exists today. Many times people have asked "What is the hospital of the future going to look like?"

"I remember someone predicting that every bed would be on a monorail and I could imagine the bed being pushed down the corridor and someone taking the temperature,



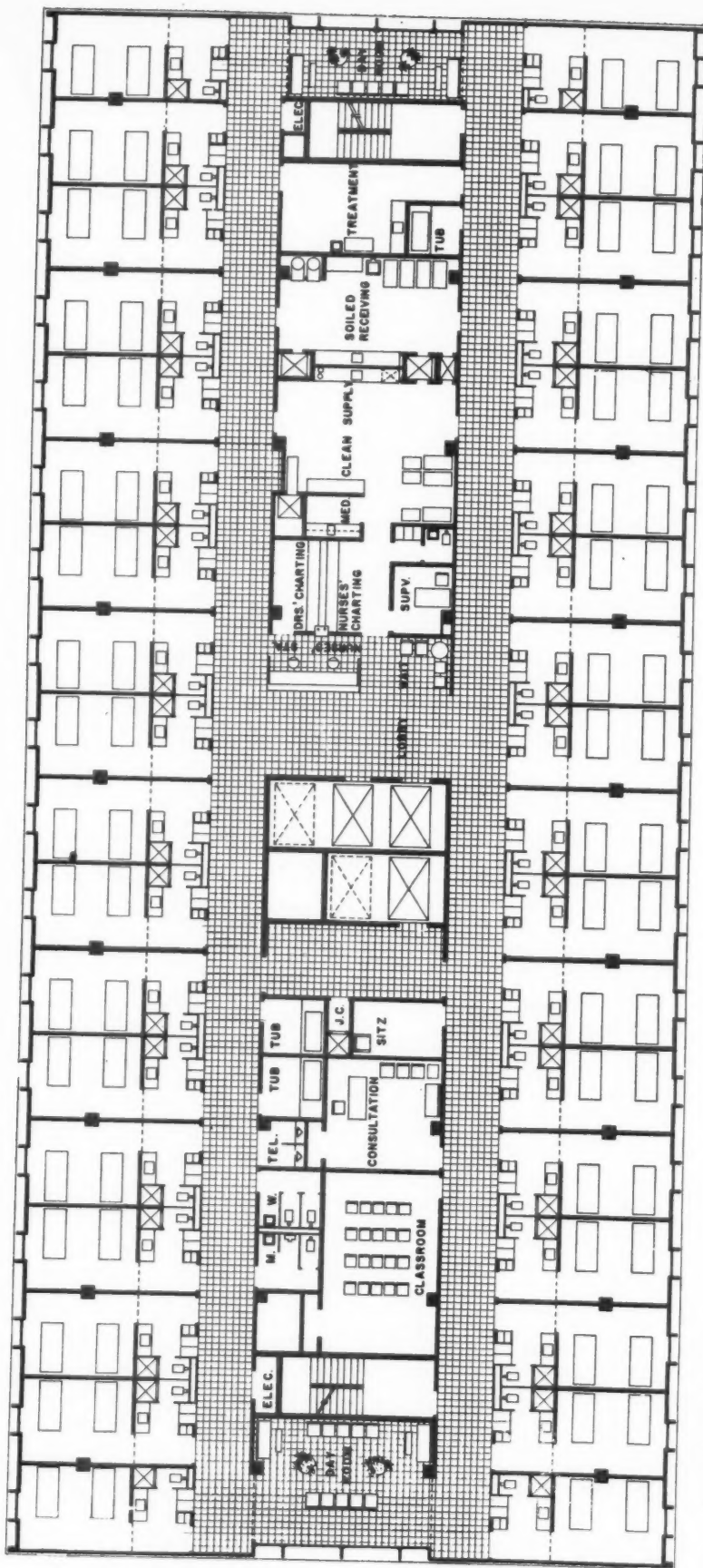


Fig. 4: Typical Nursing Floor, R. E. Thomason General Hospital, Texas

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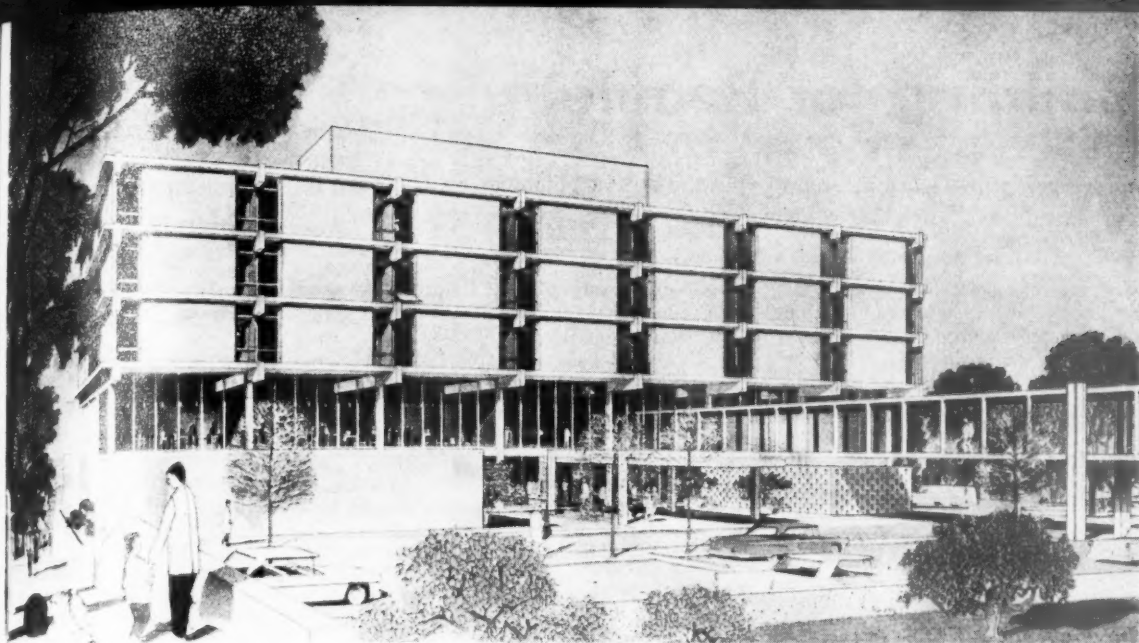


Fig. 5: Somerville Hospital, Massachusetts  
Gordon A. Friesen Associates, Hospital Consultants  
Paul Schweikher and William Metcalf, Associated Architects

someone else taking the pulse. That is what we do *not* want. We have so much to do with even taking advantage of what we know today, let alone what we might know in 20 years from now.

'At least, when we build a hospital today, let us be able to say that it is up to date, instead of merely making the rounds, visiting other hospitals and saying "This looks good; let's have one of them." Every hospital we build should be better than the hospital built before.'

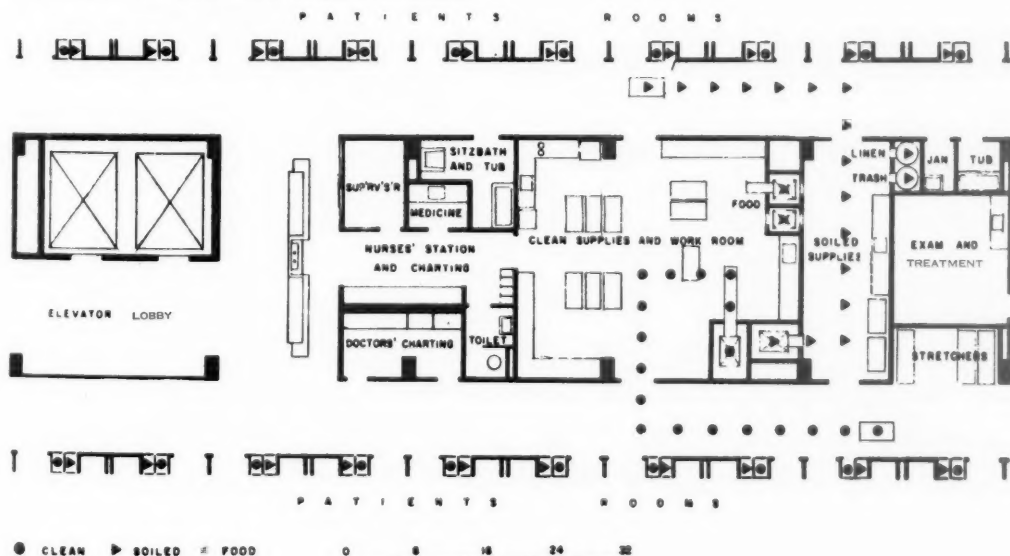
During discussions questions were asked: about the need to have a services level below the main patients' entrance level, and Mr Friesen replied that this was convenient but not essential. If the site were flat and it would not be economical to excavate, they could be on the same level with perfect convenience provided that they were on opposite sides of the building, so that the two flows, of people on one side and material on the other converged at the centre of the building. On diagnostic X-ray departments: automatic processing

plants always saved man-hours and was therefore essential. In large departments 'you cannot afford to be without it'. On education for automation: his firm was involved with a hospital project from the outset until a year after it was commissioned to help with the education of staff in the acceptance and efficient use of automatic plant. On the lower and upper hospital size limits of his supply system, had the system economic limits? He replied that he did not believe that there was a lower limit of size below which his system would not be more economical to operate than a conventional non-automatic system. He was developing a hospital project for 50 beds which used every detail of his automatic supply system. He did not mention an upper limit of size.

The vote of thanks was proposed by Mr John Weeks [A], seconded by Sir Ewart Smith, and was carried by acclamation.

[The Editor is much indebted to Mr John Weeks for help in preparing this paper for press.]

Fig. 6: Nurses Station Supply Core. 50-bed nursing unit  
Gordon A. Friesen Associates, Hospital Consultants





# Building for People

A paper given by Henry T. Swain [4] at the BASA Conference on The Basis for Design, held at the York Institute of Advanced Architectural Studies on 1-3 September 1961

Modern architecture has to meet the challenge of providing a beautiful and workable environment that can be enjoyed by everybody at a price they can afford to pay. Its future depends on how far it can meet the requirements of society as a whole and the individuals themselves who use the buildings.

What are these requirements? In very general terms we can discern the more obvious ones. They face us in every street of decaying slums, every strangled city and every ugly spreading suburb. It is lucky that the industrialised society which has produced such enormous building problems has also produced the new means of solving them and we have at hand, for the first time in history, an instrument – modern machine production – potentially capable of providing people with the civilised surroundings that they want.

But this is another story. Today I want to talk about how we might define in more precise terms what people's requirements are, rather than the techniques and organisation of building. I think this is the most important single aspect of our work, because it is use function which is the basis of modern architecture. I also think it is the most neglected side of architecture, and I do not think we have thought nearly enough about how to design the sort of buildings that people really require. It seems to me that people live quite differently now from the way they did 50 years ago, yet this is barely reflected, for example, in house use or community design. The use of the car and television, the higher standards of education, the working housewife, and so on, do not appear to have made much difference to the plans. Perhaps there is too much speculation about how people ought to live and not enough sympathetic study of how they, in fact, do. Perhaps people in the housing areas are treated too much in terms of numbers; perhaps there are too many statistics and not enough human understanding. I am perfectly certain, however, that part of the trouble lies in our own profession. The traditions of the Renaissance architecture die hard and there is still, today, among some architects a cynical attitude of mind which concentrates on the game of architectural styles as if architecture was an end in itself instead of something to make life more worth living. It is, of course, extremely difficult to find out what are the requirements of something as complicated as, for instance, a living community. People

remain stubbornly different from each other and change from day to day. Who will tell us what is needed? How can we distinguish between the conflicting requests? How can we distinguish between what is obsolescent and what is the emerging trend? The trouble is, we have not developed in the techniques of analysis we need to determine the brief for our buildings.

Is it any wonder that many of us prefer drawing the latest shapes on the elevations of basically out-of-date new buildings? Before correct architectural answers can even be thought about, the right human questions have to be asked. To evolve techniques to help us analyse the needs of the users of our buildings is the most urgent task for our profession and whilst others will assist us and advise us, I am afraid it is our task.

I am going to talk a little about how we define the educational requirements for schools. I am conscious that we have not developed any startling methods; on the other hand, the county for which I work is an ordinary county and such techniques of user requirement analysis as we employ are within the context of an ordinary production office with a heavy building programme.

Last year, as Dan Lacey's deputy, I spent a few weeks in Milan whilst the Triennale Exhibition was open, showing people around the small school that we built there as the British exhibit. It seemed to me that one of the things about our school which interested visitors from other countries was the way the design of the building and its contents were closely related to its educational function. It was difficult to see where education left off and architecture began.

I think the visitors were right to notice this. It is the hard work that has been put into the analysis of the requirements of modern education and the working relationship that has been built up between teachers and architects, which is the most important force behind our school architecture.

It is worth looking at the methods used because the lessons we have learned in defining the requirements of teachers and children may well be applicable in general to other types of buildings.

When an architect starts the design of a new building he has to consider a number of factors. First, there is the site with relationship to the surrounding areas and its own physical characteristics. Secondly, he has to consider what is the best method of constructing

the building. To do this he will have to take into account not only the likely room sizes, number of storeys and anticipated floor loads, but also availability of building labour and the date when the building is needed. Thirdly, he will have to consider the question of cost – the money that his client can afford. In school building there will be a predetermined ceiling cost fixed by the Ministry of Education on the basis of so much money per child in the school.

But the key factor that he will have to take into account will be the required function of the finished building – how to ensure that it will give the best possible performance when it is in use in return for the money spent on it. In the design of a new school it is at this point that the architect turns to his educationalist and teaching colleagues.

You might think that the educational authority which is, after all, commissioning the architect, ought to give him a complete list of classrooms together with types, sizes, and notes on other accommodation needed, like a design programme in a school of architecture, and all he would have to do would be to string them together in a pleasing relationship; in fact, why cannot the client tell the architect what he wants and allow him to get on with the design?

There are two reasons why this method does not work. First the architect has to have far more information than can be conveyed in a schedule of rooms, however detailed. And secondly, the education authority probably is not sure, except in the broadest terms, exactly what it does want in the way of building.

If I ask a teacher what sort of rooms or furniture he needs to carry out his work, his choice will be limited by his knowledge of things he has seen before. Even the best of what he has seen is probably out of date and only partially good enough, and what is needed is an entirely new design. As an architect, I am trained to envisage and devise the best surroundings for people to work in; but I cannot do this unless I know exactly what is going to happen in them. So my question to the teacher is not 'tell me what you want' but 'show me what you want to do'. The design of good school buildings, therefore, must inevitably depend upon co-operation between teachers and architects.

Here I should like to quote from an article in *Architectural Record* by

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William Pena and William Candill of the firm of Candill, Rowlett and Scott of Houston, Texas. They say in an introduction to a fine essay describing how they analyse the requirements of their clients:

'A doctor doesn't necessarily give his clients what they want. In some cases he could be jailed for that. A doctor gives his clients what he thinks they need. So it should be with the practice of architecture. But the trick is to distinguish between wants and needs.'

In Nottinghamshire we precede the design of any new type of school by an inquiry into the educational needs. We have recently completed such an inquiry into the needs of comprehensive schools and I would like to say something about this as an example of the sort of collaboration I am talking about.

The County Education Plan calls for two comprehensive secondary schools, one for 1,710 children and one for 1,290 children in the big straggling mining villages of Kirkby-in-Ashfield and Ollerton. They are to start construction this year. The County Architect's Department must design them to meet the requirements of the County Director of Education within the permitted cost.

What should these school buildings be like? Should they consist of small separate buildings grouped round a central space like a village, or should they be single compact units. Should they be two storeys high or six? Will they be self-contained or will they turn outwards towards the surrounding communities in response to the needs of youth and adult use? Their architectural form can only be determined when we have a precise knowledge of their function, of how they are likely to be used. We have to forget our drawing boards for a few weeks and go and find out what this is.

Our final design, of course, will have to be approved by the Director of Education, Mr J. Edward Mason, who is responsible for the schools in the county. He and his officers have a lot of ideas on how these comprehensive schools might be run. I explained to him, therefore, what we needed to know. He is used to working with architects and his response was to arrange for us to have access to operating schools in which he has confidence and to make his senior education officers available to work with us.

There are no comprehensive secondary schools running in Nottinghamshire so the Director of Education also asked his colleagues in London, Coventry and Nottingham City to help us. In addition, therefore, to the facilities provided by our own grammar, secondary modern and technical schools, we had the opportunities of studying the practice of comprehensive education where there was most experience behind it. Last autumn the

Assistant Director of Education, one or two of my colleagues, and I visited and studied seven working schools.

We were interested in three things: watching what happened in the daily running of the school, interviewing the teachers, and measuring and counting. We generally began by talking to the head teacher. At the outset we explained that we wanted him to tell us about his *work* and *not* about the building.

'What do you think are the special problems of big schools?' we asked him - 'What happens when you have a complete range of aptitudes in one school, what courses do you run, what examinations do you aim at, what subjects have you in the time table?', and so on. These questions were aimed at getting him to talk about what he thought was important. I don't like the formal questionnaire - you have to presuppose answers before you can formulate the questions properly - and in this case we cannot guess what the problems of organising big schools are. Also every teacher has some creative special thought about education - it is this that we want to hear - whatever it is.

A feeling of collaboration was quickly built up, and the head teacher would soon ignore the fact that we were concerned with the design of buildings and would present to us in simple words the aims and methods of education in his school. I think some of the teachers we talked to were rather pleased that architects were taking such a detailed interest in their problems.

Notes were taken at these interviews and carefully written up on return to the office. A lot of this information obviously had no immediate relevance to the planning of the new schools. But we were not sure what would be useful until we could review all the evidence. And in any case, even the information that subsequently had no direct effect on our work all helped to identify us with the aims of education.

We were not, of course, just interested in facts. Ideas and ambitions were also necessary evidence. Education changes rapidly. These comprehensive schools will have to be designed to *solve tomorrow's problems, not just today's*. Which way is education going? A prediction by a head teacher of a developing school is likely to be as good as we will get. In any case, we shall have to design the buildings so that they can accommodate a wide range of different educational activity. Flexibility of use will be a built-in fundamental requirement. Many human activities, education being only one, are inhibited or ossified by the rigid shells of our old buildings. I want our new schools to suggest and encourage new ways of teaching and learning.

After we have listened to the head teacher he may show us round his

school, and perhaps we will talk to his staff separately. On one occasion, I was introduced to a woman teacher who looks after eleven-year-olds who are slower to learn than the rest. Her class gets on apparently quite happily by themselves while she and I talk. She tells me how her children are made to feel part of the school community yet are given more personal attention by their form teacher. I ask her what teaching methods she uses. At the moment the children are sitting formally in rows facing the blackboard, but there are other ways of learning. The children will often work in groups on different things, possibly draw maps, make models, act, and sometimes they will work by themselves. There is the tape recorder, the radio, the film strip projector. The range of activities going on in what appears to be an ordinary classroom is quite large. I need to know a lot about these activities if the classrooms we are going to design for our new schools will be comfortable places where serious work can be done.

I take lunch at a table with two members of the staff and five children in one of the dining-rooms. Afterwards some of the school clubs meet - the young farmers' club, the chess club, ballroom dancing. This sort of recreational activity seems to be encouraged and I make a list of them, the kind of things they do and the sort of spaces they make use of. Provision will have to be made for all this in the two new schools.

The needlework class looks as if it only spends a small amount of its time listening all together to the teacher. The girls are working in groups, sewing, studying patterns and fashion magazines rather like being at home. There are dress designs and sketches hung upon the walls. You can walk right through a class of 30 intent little girls and they do not look up. The teacher is showing a group of four how to cut out cloth. This sort of class activity surely calls for a studio workspace which is informal and domestic in character with comfortable chairs and magazine racks.

When we got back to the office after such a visit, we would record all we had seen and been told. When similar records from six other schools were added, we had enough knowledge of the problem and sufficient information to start drawing conclusions about Nottinghamshire's Comprehensive Schools.

We do this with the Assistant Director of Education and his specialist advisers. What emerges is a description of how these big schools might run, what they are aiming at, and what the working day and evening will be like in them. At this point you realise you cannot hope to build the perfect school. To meet precisely all these diverse and important requirements would cost far too much.

Our colleagues in the Education



Department have to determine their priorities; our job is to identify the problems and say what is possible and propose ways in which every square foot of floor area and every piece of equipment we can afford can contribute fully to the school.

For instance, it is clear from the evidence that we have collected that craft subjects are often combined. Making sailing dinghies needs the skills and facilities of metalwork, woodwork, technical drawing. Where in the new schools can they do this sort of thing? Can an extra space that we have not seen in the other schools be afforded? We work out the area of building that can be allocated to the craft subjects. No, we cannot afford an extra space; but if the education officers feel that they can forgo one of the woodwork rooms that previously seemed necessary, with the money saved we would be able to build a very large shed and plan all the other craft rooms to open off it, so there would be a sort of common factory space unifying metalwork, woodwork, engineering, and technical drawing. The architectural form would also help to make the children appreciate that the different specialities are part of an educational whole.

Many of the big schools we have seen are sub-divided into houses to give the children a feeling of belonging to a smaller unit. The Director of Education decides that our schools must be designed to encourage this sort of organisation.

We need house rooms for morning prayers, recreation, dining, quiet individual study, and evening use – they will be social centres for houses of 210 children. These are expensive, but since our examination of the existing schools has shown us that the whole school rarely needs to assemble as one huge unit, we really require quite a small central hall designed more as a space for concerts and ballroom dancing, and the reduction in the size of this hall saves enough money to pay for the house rooms. We draw sketches to crystallise the idea and to indicate the various forms these house rooms might take and what needs to go in them.

Discussions like this continue over a period of weeks. Each aspect of the curriculum, time-table, and organisation is considered and needs the skills of both educationalist and architect.

Who contributes the ideas? Educationalist or architect? You cannot answer this – all you can say is that they spring from the study of the actual way teachers are in practice working and getting results in a variety of different schools.

At the end of the inquiry into comprehensive schools we have, in effect, written a book which describes the educational requirements of the new schools in terms of spaces, furniture

and equipment. If we can design the schools to meet these requirements we shall produce buildings that accord with needs of modern educational practice and thought, and foreshadow the future.

It is now our job to design the two big schools at Kirkby-in-Ashfield and Ollerton, to convert the predetermined educational requirements into real buildings. For months we shall be concerned with the planning of the building and the site, the design of the steel structural frame and foundations, details of doors, windows, heating systems, ceilings, chairs, notice boards, landscape and the thousand things that constitute a school. Our full knowledge of the function of the schools could not in itself produce good architecture. This depends in the last resort upon the imagination and skill of the architect in the actual process of design, but the knowledge of who is going to use the building, in what way, and for what purpose, is the starting point for any significant architectural thought.

The inquiry work which determines the requirements of new schools such as I have tried to describe has never been carried out by statistical or scientific research methods. Collecting the mixture of facts and opinions, ideas and value judgement which forms our design data cannot be delegated to some research specialist who could as a result of his studies perhaps tell the architect what is needed. It is essentially an architect's job and it requires an understanding of people and a sympathetic insight into what their aspirations are.

These are, I think, the real generators of modern architecture and to interpose some expert between the architect and the people who will use his building is to cut him off from his sources of inspiration.

We have thought a lot about the inquiry method I have described and we are conscious of its shortcomings. I think, perhaps, I should try to summarise some of the points that we think, however, are valid and may well be useful for other types of building.

First, you have to work with your client. You have to bring him into the project from the very beginning – make him feel that he has to contribute as well as you, and by client I mean not only top people but people who have to operate the new building at every level.

Secondly, you have to soak yourself in the background. If you are designing educational buildings, you have to identify yourself with education, you have to read about it, attend conferences, and like children.

Thirdly, you have to study jobs of a similar kind to the one you are designing. (The worse they are architecturally, the better – you are seeking out the problems, not solutions.) When you do this, you have to watch what happens, you have to measure things and count

things and you have to interrogate. You are interested in what is happening, and why, and what could happen – ideas, as well as facts.

Fourthly, you need to record honestly and objectively all you have seen and heard. There is a great danger of selecting the things that you yourself like.

Fifthly, it is very important to summarise the results of your analysis, so that the client himself can make decisions. It is as important to present your user requirement analysis in an efficient way as it is to produce final drawings. You also need to organise your thoughts clearly and setting things out properly helps to locate the real problems.

I would like to say one or two general things in conclusion. Whilst you are working at the drawing board you have, in addition to the written requirements, a picture in your mind of individual teachers and children you have got to know; perhaps you have got rather interested in the not very bright boy who gained a new confidence in himself as chairman of the young farmers' club, or the master who is teaching extremely good mathematics to the sixth form in a grim underlit classroom of a pre-1914 school.

They remind you that architecture can never be an end in itself but a means to a much more important objective – in the case I have described – the civilised education of children.

It is, perhaps, something of a paradox that in school building where architecture has been most consciously subordinated to a definite social aim beyond itself, much of the best of our modern architecture has been produced, and the achievement of Great Britain has been most widely recognised internationally.

I am pretty sure that the architect's real creative work is inspired, not by architectural style, but by a sympathetically acquired and detailed knowledge of the people for whom he is designing.





# RIBA Public Relations

## Aims and Objectives

The Public Relations Committee and its officers are generally responsible for promoting good relations between architects and the public, and are also to some extent responsible for promoting good relations between the Institute and the profession itself. The department is sometimes an initiating body, at other times it gives a service to the Council or to other committees who wish to undertake some public activity or to make public statements. It also provides services which are available to the press, radio, television and the general public – to anybody, in short, who seeks information about the Institute, the profession or architecture. It cannot operate in a vacuum, and can only be successful to the extent that the Council itself and all committees understand and value public relations, participate in the work, initiate ideas, formulate policies, and give the Public Relations Committee clear guidance on the principal objectives. This paper is intended to explain the work of the department and to serve as a basis for the discussion of this work by the Council.

The work of the department has two interrelated aims:

(a) Public relations for the Institute and the profession. Publication and explanation of RIBA policy (so as to secure its acceptance and if necessary its implementation by others) and of RIBA activities, or action taken by the RIBA and by architects to equip themselves to serve their clients and society.

(b) Public relations for architecture. Promoting an understanding of, and an interest in, architecture and the physical environment, the job of the architect, and the responsibilities both of the client and of the public.

In the past the main emphasis has been on the second aim, but today there should be a radical change in the direction of public relations policy, so that equal emphasis is placed on the first aim. The Institute is now evolving policies on such matters as the package deal, relations with the building industry, the professional code, architectural education and careers, registration, fees, building control, technical information services, town planning (including central area redevelopment) and architecture in local government. There is no point in doing this unless the policies are understood, accepted and implemented not merely by the members of the Institute but by all those who are concerned or affected. Moreover, the more the Institute is seen to be concerned about the services its members give to the nation, the more readily will its advice be sought and listened to.

Some policies may require legislation and depend on political support. Others depend on adoption by the Government, by local authorities, universities or other educational bodies, or by clients. Others particularly affect relations with the building industry or the professions. Some can be implemented by the Institute itself, but may encounter resistance or misrepresentation which must be corrected or put right. All depend upon the understanding and active support of the architectural profession, both in London and in the rest of the country where the allied societies have an important part to play. It is important not merely to publicise and win support for the Institute's policy, but to heed criticism, to see trouble coming, and to react appropriately wherever legislation or other developments seem likely to affect the profession, or to offer unexpected opportunities to present its point of view. The department, in short, is not only an executive arm, carrying out policy, but should be the eyes and ears of the profession as well.

The priority to be given to the Institute's activities and policies does not lessen the importance of the second aim – the promotion of a better understanding of architecture and the architect's job, and the stimulation of a powerful demand for a vast improvement in the quality of the whole physical environment. We are seeking, here, nothing less than a cultural revolution. An understanding of architecture is not regarded today as an essential part of an educated man's equipment. He is expected to have some knowledge of science, literature and the arts, contemporary novels and the theatre, but nobody thinks the worse of an Oxford don who has not the faintest idea what modern, or even ancient, architecture is about. There is today a great quickening of interest in architecture, town planning and building, but it takes place on a general basis of ignorance about the most elementary functions of the architect and it must be questioned whether this can be decisively changed without a much greater public relations effort than has been possible in the past. The aim must be (1) to educate the public in the whole process of design and construction so that architecture ceases to be regarded as a question of elevational fashion but becomes an intelligible process of immediate concern to ordinary people; (2) without 'over-selling' the profession to demolish false ideas about architecture and architects, and to show how much architecture has to contribute to the well-being of the nation and its people in every way; and (3) to explain the difficulties and limitations that

affect the architect's work. It remains true that the best public relations is good architecture, and that unless the profession has a reputation for efficiency and an understanding of human needs, the public will be unwilling to heed its advice on the questions of design or concede freedom from unnecessary controls. But good work cannot be left to speak for itself, because the public does not always recognise good work when it sees it, and must be made aware of new possibilities before it can demand them. The time must come when the public looks to the architect, as much as it does to the physicist, the chemist or the automobile engineer, to shape a new and better world for him.

## Audiences and Channels of Communication

It is not always appreciated that expansion of the work of the department is governed not only by the budget at its disposal but also by the calls various activities make on staff time. Some forms of activity (e.g. press and television, developing personal contacts) require relatively little direct expenditure but may require a large amount of staff time, and must be backed by an effective service of information. Other forms (e.g. exhibitions) require both staff and money, while others (e.g. commissioning a film) would require a lot of money initially but relatively little staff time. The channels of communication must therefore be strictly related to the targets we are trying to hit, the object being to reach the largest number of people at each level for a given expenditure in time or money. An exhibition at the RIBA is probably by far the most expensive method, per head, of reaching the general public, but may be the cheapest way of speaking directly to a selected group of people to whom we wish to communicate ideas. Poster exhibitions are relatively cheap and reach a wider audience. The next few paragraphs therefore discuss the audiences we wish to reach.

(a) The General Public. Informing and interesting the general public is best done through the media of mass communications (press, television, and radio) where the basic cost is met by others. Lectures and exhibitions which only reach a minute proportion of the general public are of limited value in this field unless they give rise to news or features for the press, radio or television and should be arranged with this in mind.

(b) Specialised Groups. The 'general public' is, of course, largely a fiction, as the public consists in fact of a host of minorities with special interests. It is



particularly important to influence those minorities which give leadership in the community (including the minority who are keenly interested in architecture and civic improvement), or who directly commission, influence or control architecture and town planning. Within the industry, there are manufacturers, building employers and operatives and the professions, which are specially concerned with questions of costs and efficiency, and present possibilities both of friction and co-operation. Outside the industry there are such groups as politicians (both national and local), officials of central and local government, teachers and educationalists, university staff, businessmen, industrialists, developers, doctors and hospital administrators, and many others. How far we can develop our relations with each of these groups depends upon the resources at our disposal. They are reached through the mass media, and particularly through those journals or programmes which cater specifically for them. But these groups can also be identified, personal contacts can be developed informally (and this is not primarily the responsibility of the Public Relations Committees but of other committees each of which has a duty to develop its own public relations in this sense) and can take part in special meetings, lectures, conferences, or symposia. As our resources are limited, it is necessary for the Council to say which issues are so important as to call for a special concentration of effort on a particular group.

(c) Young people. Young people constitute a particularly important group. There are two separate but related problems: initiating architectural education in secondary schools generally, and stimulating interest in architecture as a career in the grammar, public and comprehensive schools where boys and girls are prepared in the sixth forms for the 'A' level GCE exams. It is clearly impossible for architects themselves to lecture to more than a tiny proportion of the schools, useful as this is, and architecture must be presented to the children by school teachers. There is virtually no architectural visual material available to schools other than a few film strips (mostly on historical subjects) but there would be a keen demand for such material if it were available. The Public Relations Committee is considering a report in which it is proposed to initiate an RIBA service (that would be revenue-producing) of visual aids for secondary schools consisting of film strips or slides, wall charts and lecture notes, to be distributed through established channels. There are many other directions in which such a service could be expanded if resources were available (e.g. education of the art teachers themselves, poster exhibitions, book lists for libra-

ries - many of which are believed to have no books on modern architecture in them - supply of photographs and models, visits to buildings, sixth form conferences, lectures and films). Television has a large secondary modern school audience (but a very small one in grammar or public schools). Its influence will increase and the RIBA should co-operate both with the BBC and the independent companies.

(d) Careers. We are clearly not beginning to compete with industry in presenting architecture as a career to headmasters or careers masters, or to the boys and girls themselves. Many grammar and public schools simply ignore architecture as a possible career and this can only be damaging to the future of the profession. An attractive careers poster exhibition and leaflet are now available but this is only a beginning and the whole problem of careers calls for the most serious study by the Board of Architectural Education and by the Council as this is not a matter on which the Public Relations Committee can operate independently. How much can be done will depend largely on the resources available. Would it not be desirable, for example, not only to produce more attractive written and visual material and to participate in all careers weeks, but for the Board to initiate a well-publicised national conference of careers masters?

#### Extension of Activities

(a) Information Service. A good information service is the foundation of most public relations work. The information in the form of cuttings, photographs and indexed references is manifestly inadequate to serve either the needs of the Institute or of outside inquirers. The Committee would like to improve this considerably by systematic cuttings of the lay and technical press to provide good coverage both of buildings and of 'political' references, by bringing and keeping the loan photograph collection up to date, by keeping a small index of architectural models, and to revive the panel of speakers and lecturers on architectural subjects.

(b) Exhibitions. The department has for some time switched its emphasis from the major RIBA exhibition to the travelling exhibition (e.g. Subtopia) and to the poster exhibitions ('Meet The Architect' and 'A Future in Architecture'). In principle proposals for major exhibitions should be scrutinised with the utmost care, as the expenditure in time and effort may be out of all proportion to the audience reached. Exhibitions intended primarily for our own members are not, strictly speaking, a public relations activity at all and should not be a charge on the public relations budget. The department is, however, under constant pressure from indivi-

duals, often influential individuals, to display exhibitions or competition drawings which would have negligible public relations value. The department would prefer to concentrate its resources in other directions. Poster exhibitions are particularly useful to Allied Societies, and it would be desirable to produce a new one at least every two years. There may again be a suitable occasion for a travelling exhibition.

(c) Television and Broadcasting. This is a vast and potentially fruitful field of which only the fringe has been touched. It is so important a channel and so cheap in proportion to the audience reached that there is an extremely strong case for appointing a new member of the staff to concentrate exclusively upon it, systematically studying programmes, their techniques and possibilities, developing ideas, contacting producers and others, and assisting the Allied Societies in their relations with the BBC and the local television stations. In addition to day-to-day contacts the RIBA should approach the BBC and independent companies annually at the highest levels with carefully worked out ideas for major programmes. It would be helpful if a number of younger members were prepared to make the study of this medium their major commitment for the RIBA.

(d) Publications. A permanent subcommittee is needed to review the whole field of architectural publications for the public, and to consider how far the needs of the Institute can be met by publications and by other publishers, or by the publication of books, pamphlets or leaflets by the RIBA itself. The department is preparing a series of leaflets on various aspects of the architect's work but there is a clear need for a good publication for the client on how to work with his architect, for good popular works on modern architecture and town planning, for a brochure for members and students on the services given by the RIBA, and a good book on architecture as a career.

(e) Films. Films are the most expensive form of public relations expenditure and cannot be justified unless they reach a large audience. If they do, however, they can be very valuable. The department is very concerned about the enormous waste of money on films by the building industry, which makes many poor films and hardly any good ones, and would like to see this money spent more usefully. It is discussing with the Technical Information Committee a proposal to launch a Building Industry Film Organisation, financed by the industry (with a contribution from the RIBA), designed to initiate the joint sponsorship of good films that would fill gaps in the films available and raise the standards of technical films. Such an organisation could not be launched



successfully without a considerable effort by the Council and its officers to win support from the industry. But a major question is whether it would not pay the Institute to invest a substantial sum in producing a film to explain the work of the architect to lay audiences. If well made by a first class popular producer such a film would require an initial expenditure of £7,500 to £10,000 but over a period of three to four years it need not necessarily lose a lot of money.

(f) Publication of Architects' Work. The Committee has submitted to the Practice Committee proposals for a revision of the Codes of Professional Conduct to enable architects to publish illustrations and descriptions of their own work in the press. At present the publication of architects' work is largely in the hands of contractors, developers and their publicity agents, whereas architects themselves are forbidden to offer their work for publication in the lay press.

#### The Allied Societies

Much of the work initiated by the RIBA only affects directly London and the Home Counties. The extension of the work in the rest of the country depends upon the Allied Societies which suffer, however, from dependence upon a small number of devoted members, lack of full-time assistance and lack of money. Most Allied Societies' finances are already stretched to maintain basic commitments, and have little margin for additional public relations activities. Allied Societies' work must continue on a voluntary basis but the difficulty of getting time off or absorbing expenses through their offices tends to exclude younger people. It would be a partial solution for more Allied Societies to combine regionally for certain activities, as three Societies in the north-west have combined for such activities as exhibitions, exploring ideas for television and broadcasting, or making film. Increased staff for Allied Societies work at headquarters would also help. The small fund on which Allied Societies can call for specific, approved, projects is valuable, but leaves untouched the problem of financing the normal, continuing work. Although there is scope for extending Allied Societies public relations work, notably through the local press, without undue effort or expense, the Public Relations Committee wishes to impress upon the Council the necessity for a continued review of the finance available for public relations activities outside London.

#### Priorities and Finance

The financial and staff implications have not been stated in any detail as these will be the subject of a report to the Finance Committee when the allocations

for the next financial year are being considered. It must be noted however that much public relations work has to be planned more than a year ahead and that the budget envisages no increase in the next three years of the departmental budget of £3,500. Expansion of the department's activities is clearly dependent either on a redeployment of the existing staff (including some reduction in existing services) or some increase in staff and in the annual budget.

## Correspondence

The Editor, RIBA JOURNAL

#### The Golden Rule

Dear Sir, - From time to time, there appears in the JOURNAL references to the Golden Rule and its relationship to the human figure, and a year or two ago, if my memory serves me well, a good deal of discussion and even argument took place through your columns about the acceptability or otherwise of the human figure as a basis of determining perfect proportion.

Having at one time held an appointment as a lecturer on human anatomy, when my lectures often included demonstrations from the skeleton in conjunction with the living body, I have a professional and no less technical interest in any theory of proportions derived from human standards and, although I have an open mind on the matter there appears to be a most indisputable relationship between the Golden Rule and the human body when one is applied to the other, but I can never be sure whether the body is the theory and mathematics and geometry the proof or vice versa.

How any proof of beauty in the form of a rectangle can be obtained by mathematics is something that mystifies me as beauty is purely emotional and a matter of opinion, whilst mathematics and geometry are strictly unemotional and unalterably calculable. On the other hand, how the exclusive selection of a particular rectangle can be made from the proportions of the human body, is something equally mysterious to me. The accepted Golden Rule can certainly be proved (and I use that term loosely) when selected measuring points on the body are taken, but so many other measuring points are available that it seems to me that by the exercise of some ingenuity a good many more rules of differing proportions could be obtained.

The human body is entirely divorced from any exact mathematical or geometrical rules and goes no further in those directions than say, balance in the number of limbs, etc. From thereon noticeable variations take place in one side of the body to the other in every individual and, in addition, there is no part that can be accurately drawn with such geometrical aids as straight edge and compass. Every contour of the hard and soft parts will be of an apparent or ultimate curve that forms the perpetual line of growth which could be demonstrated very well with a simple blade of grass. Obviously, on a true-to-scale diagram of the human body, certain measuring points could be selected and connected by straight

lines but how far nature intended this exercise to be taken in the proving of remote geometrical shapes is open to individual conjecture. It would appear reasonable to presume that if nature had intended any minute relationship to geometrical shape or mathematical progression, it would have taken care to make the human body symmetrical to the point of acute exactness.

How does one select the ideal body to measure? Opinion, in opposition to mathematics, is an important consideration again; and although some extra length of the clavicle may give an admirable width to the shoulders it can have a decided effect on the radial track of the finger tips when describing an imaginary circle outside the body. In measuring, great care must be taken and the conscious participation of the subject measured is important as the amount of movement control of the scapula can have a marked effect on the reaching distance of the arm especially when the upper extremity is raised vertically against the opposition of the pectoral and other muscles.

Although the Golden Rule as now accepted has a sound relationship to the human male (so long that micrometrical measurements are not attempted) I cannot think of any reason why there should not be more than one rule of proportion: one at least based on the male and one on the female.

Leonardo da Vinci used the human male in calculations of proportions and there is no reason whatsoever why he should not have so drawn certain conclusions from that sex alone. But is there any scientific reason why the male figure should be used in preference to that of the female? Are not both sexes equally acceptable when devising rules of proportion? My interest in modern anthropology prompts me to suggest that the male figure was used by Leonardo and his predecessors purely on account of the fashion of the times and further suggest that were the Golden Rule of proportion being discovered in the 20th century the female figure would have equal consideration with that of the male for basic measurements.

From the days of Greek eminence in art to a period extending well after the life of Leonardo the male was considered to have a superiority over the female in achievement and physical excellence and it was the male body which was displayed by the ancients in preference to the female. Even as late as the 16th century male attire emphasised physical differences much more than did the females'. Today outlook has changed and it is the female who emphasises physical differences in her attire; she is not only recognised as being the equal of the male in intelligence but has become the symbol of physical beauty and modern thought would, I think, make her at least an equal choice for the basis of experiments in defining perfect proportion.

Is then, the Golden Rule as we know it, although feasible, the final answer? Is it, in fact, in keeping with modern thought? As I have stated, my mind is open; my observations could be for or against; but if we are conscious of beauty when there is a harmonious relation between something in our nature and the quality of the object which delights us - then 'nature' may after all have given us the Golden Rule(s).

Yours sincerely,  
SYDNEY MILLS [L]



# The Sir Banister Fletcher library technical reference section

In 1959, a special advisory panel was appointed by the Library Committee to examine the problem of technical books for the profession, and to set up a small, separate and self-contained Technical Reference Section in the Library, where it would be easily accessible to members. This section was to consist of up-to-date books of recognised authority, suited to the requirements of the average architect. Planning, rather than design, was the criterion of selection, and no books concerned with specific building types were to be included. The Text Books Sub-Committee of the Library Committee will review the section annually adding and subtracting books as necessary.

The first list of books for the Technical Reference Section was printed in the Library Bulletin in May 1960 (Volume 14, No. 3). The second list, revised by the Text Books Sub-Committee, is published below. It will also appear in the Spring issue of the Library Bulletin, with annotations for each book, and a limited number of offprints will be available. The books are classified under both the SfB (left margin) and UDC (right margin) systems.

This collection represents the kind of library which a medium or large office would be well advised to have. It could also form the minimum basis for the library of a school of architecture. The cost of purchasing such a collection would be approximately £160.

(16) 69.021.15  
**Henry (F. D. C.)**  
The Design and Construction of Engineering Foundations.  
London: Spon. 1956. £3 3s.

(2) 729.3.036.6 (084)  
**Boyne (D. A. C. A.) and Wright (Lance)**  
Architects' Working Details. Volumes 1-7.  
London: Architectural Press. 1953-60.  
£1 5s. each.

(2) 693+69.04+69.021.15  
**Cassie (W. Fisher) and Napper (J. H.)**  
Structure in Building. 2nd edition.  
London: Architectural Press. 1958. £1 10s.

(2) 69.02  
**Davies (R. Llewelyn) and Petty (D. J.)**  
Building Elements. 2nd edition revised.  
London: Architectural Press. 1960.  
£1 17s. 6d.

(2) 729.3.036.6 (084)  
**Mills (Edward D.), editor**  
Architects' Detail Sheets. Volumes 1-5.  
London: Iliffe. 1952-61. £1 10s. (approx.) each.

(21)G 69.022.324/327  
**Hunt (William Dudley), junior**  
The Contemporary Curtain Wall: Its Design, Fabrication and Erection.  
New York: F. W. Dodge Corporation;  
London: Interscience Publishers. 1958.  
£4 12s.

(24) 729.391+69.026

**Schuster (Franz)**  
Treppen aus Stein, Holz und Metall.  
Stuttgart: Hoffman. 1951. £3

(31) 729.385  
**Schneck (Adolf G.)**  
Fenster aus Holz und Metall.  
Stuttgart: Hoffmann. 1953. £4 5s.

(32) 729.381+69.028.1  
**Schneck (Adolf G.)**  
Türen aus Holz und Metall.  
Stuttgart: Hoffmann. 1956. £4 5s.

(53) 696.1:728  
**Goodin (F. Glanville) and Downing (J.)**  
Domestic Sanitation.  
London: Estates Gazette. 1959. £2 10s.

(53) 696.1  
**Webster (Sydney)**  
Plumbing in Building.  
London: Batsford. 1957. £1 5s.

(53) 696.1  
**Webster (Sydney)**  
Plumbing Materials and Techniques.  
London: Batsford. 1959. £1 10s.

(6) 696/699  
**Gay (Charles Merrick), Fawcett (Charles de Van) and McGuinness (William J.)**  
Mechanical and Electrical Equipment for Building. 3rd edition.  
New York: Wiley; London: Chapman and Hall. 1955. £3 8s.

(63) 696.6  
**Steward (W. E.)**  
Modern Wiring Practice. 3rd edition.  
London: Newnes. 1957. £1 5s.

Aa2 69 (083.74)  
**British Standards Institution**  
Yearbook. London: BSI. 15s.

Aa2 69:014.3  
**DSIR: Building Research Station**  
Index of Building Research Station Digests.  
Garston: DSIR

Aa2 69:5/6  
**DSIR: Building Research Station and others**  
Index of National Building Studies.

Aa5 711:34 (03)  
**Heap (Desmond) and Burke (John), editors**  
Encyclopedia of the Law of Town and Country Planning.  
London: Sweet and Maxwell. 1959. £10 10s.

Aa5 72.08:34  
**Knight (Charles) and Co.**  
Knight's Annotated Model Bye-laws.  
Volume I: Buildings. 11th edition.  
London: Charles Knight and Co. 1953.  
£2 2s.

Aa5 72.08:34(42.1)  
**London County Council**  
Construction of Buildings in London.  
London: Staples Press. 1957. 17s. 6d.

Aa6 72.08:34  
**Ministry of Housing and Local Government**  
Model Bye-laws. Series 4.  
London: HMSO. 1960. 4s.

Aa7 058:62  
**Kempe's Engineers Yearbook**  
London: Morgan Bros. 1961. £4 7s. 6d.

Aa8 69(083.74):728.1  
**British Standards Institution**  
British Standards Handbook No. 3 relating to Building Materials and Components for Housing.  
London: BSI. 1955. £3 10s.

Aa9 72.018:691.598  
**British Standards Institution**  
BS 2660: Colours for building and decorative paints.  
London: BSI. 1955. 7s. 6d.

Aa9 7.018(083)  
**Munsell Color Co.**  
Munsell Book of Color.  
Pocket edition. 2 volumes.  
Baltimore: Munsell Color Co. £32

Ab2 693.55  
**Faber (Oscar)**  
Reinforced Concrete.  
New edition rewritten and extended by John Faber and Frank Mead.  
London: E. and F. N. Spon Ltd. 1961.  
£3 15s.

Ab2 693.54  
**Gray (Charles S.) and others**  
Steel Designer's Manual.  
2nd edition revised.  
London: Lockwood. 1960. £2 10s.

Ab2 693.56  
**Kaylor (H.)**  
Prestressed Concrete Simply Explained.  
London: Contractor's Record Ltd; New York: Wiley. 1961. £1 8s.

Ab2 693.55  
**Morgan (W.)**  
Elementary Reinforced Concrete Design for students of architecture and building.  
London: Edward Arnold. 1958. £1 8s.

Ab2 694.1.04  
**Reece (Phillip O.)**  
An Introduction to the Design of Timber Structures.  
London: Spon. 1949. 16s.

Ab2 693.55:69(083.74)  
**Scott (W. L.) and others**  
Explanatory Handbook on the BS Code of Practice for Reinforced Concrete.  
London: Concrete Publications. 1957.  
12s. 6d.

Ab2 693.56  
**Walley (F.) and Bate (S. C. C.)**  
A Guide to the BS Code of Practice for Prestressed Concrete.  
London: Concrete Publications Ltd. 1961.  
12s. 6d.

Ab3 69.40  
**Geeson (Alfred G.)**  
Building Science for Students of Architecture and Building. Volume 3: Structures.  
London: English Universities Press. 1953.  
£1 7s. 6d.

Ab3 69.04  
**Grassie (James C.)**  
Elementary Theory of Structures.  
London: Longmans, Green. 1955. £1 7s. 6d.



Ab3 693.54  
**Reynolds (T. J.) and Kent (L. E.)**  
 Structural Steelwork for Building and  
 Architectural Students.  
 London: English Universities Press. 1955.  
 17s. 6d.

Ab8 697+697.9  
**Bedford (Thomas)**  
 Basic Principles of Heating and Ventilating.  
 London: H. K. Lewis. 1948. £1 5s.

Ab8 697.147+697+699.86  
**Billington (N. S.)**  
 Thermal Properties of Buildings.  
 London: Cleaver-Hume. 1952. £1 5s.

Ab8 697+697.9  
**Faber (Oscar)**  
 Heating and Ventilating.  
 3rd edition, revised by L. N. Doe.  
 London: Spon. 1959. £1 10s.

Ab8 697+697.9  
**Faber (Oscar) and Kell (J. R.)**  
 Heating and Air-Conditioning of Buildings.  
 London: Architectural Press. 1957. £3 5s.

Ab9 699.81+699.815  
**Bird (Eric L.) and Docking (Stanley J.)**  
 Fire in Buildings.  
 London: A. and C. Black. 1949. 15s.

Ab9 691.11[620.19+620.197  
**Cartwright (K. St. G.) and Findlay (W. P. K.)**  
 Decay of Timber and its Prevention.  
 London: HMSO. 1958. £1 7s. 6d.

Ab9 699.86  
**DSIR: Building Research Station**  
 Thermal Insulation of Buildings.  
 By G. D. Nash and others.  
 London: HMSO. 1955. 12s. 6d.

Ab9 699.844  
**Ingerslev (Fritz)**  
 Acoustics in Modern Building Practice.  
 London: Architectural Press. 1952. £1 15s.

Ab9 699.844  
**Knudsen (Vern O.) and Harris (Cyril M.)**  
 Acoustical Designing in Architecture.  
 New York: Wiley; London: Chapman and  
 Hall. 1950. £3

Ab9 699.844  
**Parkin (P. H.) and Humphreys (H. R.)**  
 Acoustics Noise and Buildings.  
 London: Faber and Faber. 1958. £3 10s.

Ac8 72.095[693.06:389.6]69  
**Organisation for European Economic Co-  
 operation: European Productivity Agency.**  
 Modular Co-ordination in Building. Project  
 174. 3rd edition. Paris: OEEC. 1956. 9s.

Ba5 72.081.3  
**Willis (Arthur J.)**  
 Specification Writing for Architects and  
 Surveyors. 2nd revised edition.  
 London: Crosby Lockwood. 1958. 9s. 6d.

Ba7 72.083.121  
**Geddes (Spence)**  
 Estimating for Building and Civil Engineer-  
 ing Works. 2nd edition.  
 London: George Newnes. 1960. £3 3s.

Ba7 72.083.123  
**Royal Institution of Chartered Surveyors and  
 others**  
 Standard Method of Measurement of  
 Building Work. 2nd edition.  
 London: RICS and NFBTE. 1957. 15s.

Ba7 72.083.121(085.6)  
**Laxton and Lockwood**  
 Laxton's Builders' Price Book.  
 London. Annual. £1 15s.

Bb1 69:5/6  
**DSIR: Building Research Station**  
 Principles of Modern Building. Volume 1.  
 3rd revised edition.  
 London: HMSO. 1959. £1

Bb1 69  
**Mitchell (C. F. and G. A.)**  
 Mitchell's Elementary Building Construc-  
 tion and Drawing.  
 Revised by Raymond Moxley. 23rd edition.  
 London: Batsford. 1959. 18s.

Bb1 69  
**Mitchell (C. F. and G. A.)**  
 Mitchell's Building Construction. Part 2.  
 Advanced. Revised by Denzil Nield.  
 17th edition.  
 London: Batsford. 1959. £1 1s.

Bb1 69(084)  
**Neufert (Ernst)**  
 Bauteurfslehre 1960. 21st revised edition.  
 Berlin: Ullstein Fachverlag. 1960. £5 10s.

Bb1 69[72.081.3  
**Yorke (F. R. S.) and Whiting (Penelope),  
 editors**  
 Specification. London: Architectural Press.

D 691+691:5/6  
**Handisyde (Cecil C.)**  
 Building Materials. 4th revised edition.  
 London: Architectural Press. 1961. £1 10s.

De 691.21:620.19  
**DSIR: Building Research Station**  
 Weathering of Natural Building Stones.  
 Special Report No. 18. By R. J. Schaffer.  
 London: HMSO. O/P.

Di 691.11  
**Desch (H. E.)**  
 Timber - Its Structure and Properties.  
 3rd edition revised.  
 London: Macmillan. 1956. £1 5s.

Du1 691.714:620.197[691.598  
**Fancutt (F.) and Hudson (J. C.)**  
 Protective Painting of Structural Steel.  
 London: Chapman and Hall. 1957. £1 1s.

E 691.32+693.51  
**Murdock (L. J.)**  
 Concrete - Materials and Practice.  
 2nd edition.  
 London: Edward Arnold. 1955. £2

F 693.2  
**Frost (William) and Boughton (R. V.)**  
 Modern Practical Brickwork.  
 London: Batsford. 1954. £2 10s.

Fg 691.47:5.0015  
**Butterworth (B.)**  
 Bricks and Modern Research.  
 London: Crosby Lockwood. 1948. 10s. 6d.

I 696.12  
**DSIR: Building Research Station**  
 Drainage Pipework in Dwellings: hydraulic  
 design and performance. By A. F. E. Wise.  
 London: HMSO. 1957. 10s. 6d.

N 69.024.5.068.32  
**Bennett (Frank E.) and Pinion (Alfred)**  
 Roof Slating and Tiling.  
 London: Caxton Publishing Co. 1948. O/P.

V 691.598+698.1  
**Lawrance (James)**  
 Painting from A-Z. 4th revised edition.  
 Manchester: Sutherland Publishing Co.  
 1959. £1 10s.

Xi 694.6  
**Eastwick-Field (John) and Stillman (John)**  
 The Design and Practice of Joinery.  
 2nd revised edition.  
 London: Architectural Press. 1961. £2 2s.

## Book Reviews

### Planning the Surgical Suite

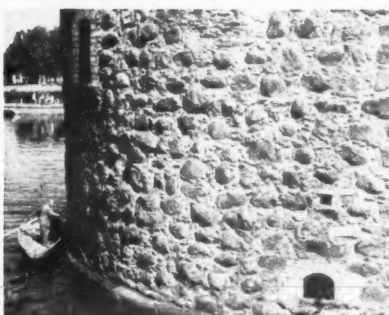
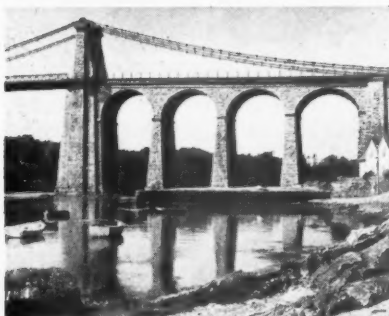
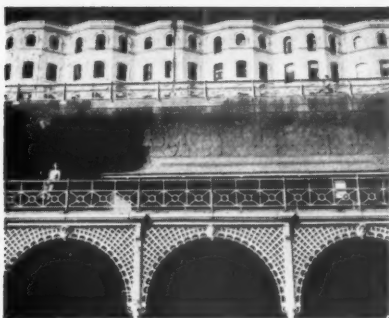
By Warwick Smith. 94 in. vii + 471 pp.,  
 figs. New York: F. W. Dodge Corpora-  
 tion. 1960. \$12.75.

The blurb inside the jacket states: 'Much  
 time and money has been wasted in building  
 and remodelling surgical suites. A suite  
 design which does not fully consider all the  
 functions required of it, soon reveals its  
 inherent flaws. Thus, within weeks of its  
 opening, it is often found necessary to  
 remodel or improvise upon the original  
 design'. The publishers claim that the book  
 'with the aid of checklists and guide  
 tables . . . provides a complete analysis of  
 the function and design of the operating  
 room complex'.

In fact the book describes much current  
 surgical suite planning in the USA, and  
 makes only passing references to practice  
 in other parts of the world and to experi-  
 mental work. It does not take sides in most  
 of the controversies, but describes them as  
 'either/or' situations with usually rather  
 poor accounts of the reasons for contro-  
 versy. The bibliographies attached to  
 each chapter are a testimony to considerable  
 research, but the rather wordy text is  
 uneven in quality, and sometimes seems  
 only to be informed by the need to cover  
 the field at all costs. However, the field is  
 covered, sometimes with stupefying breadth  
 ('research into the use of the substerilizing  
 room may provide information indicating  
 that "clean" and "dirty" functions must be  
 kept separate!') and sometimes in tiresome  
 detail (a typical air filter, we are told,  
 might be 24 in. by 24 in. by 8½ in., contain  
 45 lb. of activated charcoal, and have a  
 capacity of 1,000 cfm with a resistance when  
 new of 0.20 in wg). Perhaps the uncertain  
 tone of the recommendations reflects the  
*ad hoc* state of most theatre suite planning  
 today; but a more exploring and sophisti-  
 cated eye to the available material would  
 have been more interesting and useful.

JOHN WEEKS [A]





#### Photography and Architecture

By Eric de Maré. 11½ in. 208 pp., incl. 130 illus. Architectural Press, 1961. £2 10s.

Early in his introduction to *Photography and Architecture* Eric de Maré defines the purpose of his book: 'to tell you how to take and process architectural photographs', but he adds, 'it also has a philosophical purpose and a broadly didactic one too', and is 'a small offering of prophylactic propaganda for a more direct enjoyment of the visible world'. This is typical de Maré. He advances his fine causes including that of good photography, behind a general front of distress and anxiety, and enthusiasm for reform. 'Most people are now bored by architecture . . . we have become blind through misconceptions and so we tolerate, and sometimes try to justify our depressing and decadent surroundings.' The causes of our blindness are the industrial revolution with its raping of the earth, its destruction of proud handicrafts, its vast social upheavals; communications which destroy community; the confused and schizophrenic purposes of modern society, grabbing greed and its insane mystique of money. This is a belly-full of discontent to serve as justification for good architectural photography, but in de Maré's thinking they all link up – the aesthetic and social purposes of architecture are promoted by its lively presentation to the public.

But de Maré is not content to be just a superbly good photographer: he must

#### Photography and Architecture

L: Three of the author's photographs  
R: Terrace, house at Halland (Chermayeff) photograph, Dell and Wainwright

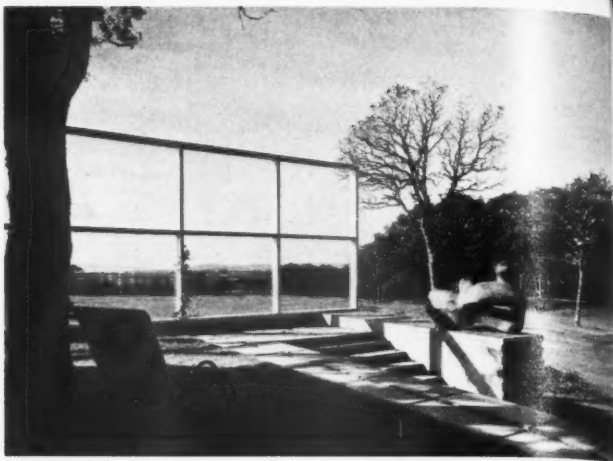
justify himself not only by his works, but by defining his reasons and by bringing everyone else along with him, and by sharing his technical knowledge and experience.

The 130 photographs (all very well reproduced in half-tone) illustrate the text and, in a full sense, are the justification for it, in so far as the basis of de Maré's argument is the validity of architectural photography *itself*. This picture or that may illustrate remarks about the quality of lighting, foregrounds, the positioning of human figures, or the use of certain types of apparatus in particular ways, but when one looks at the picture, almost invariably the first reaction is 'what a lovely picture!' – and of course all of the photographs are chosen because of their quality and not, as textbook illustrations might be, to show bad as well as good examples.

And a marvellous lot they are: gleaned from all over the world and from many of the world's greatest photographers – Kidder-Smith, Cartier Bresson, Koyo Ikada, Plika and many others. They include a few well-known masterpieces and these include several splendid examples of de Maré's own work. They are placed in groups as examples of monumentality, buildings in landscape, townscapes, buildings with 'figures as focus', wall and floor-scapes, interiors, 'reflections', framing, etc. – categories which are not, perhaps, very well chosen because they cannot in the nature of things be exclusive, but they serve well enough to spot-light features which de Maré emphasises in his captions. The text of the book continues the philosophical and polemical character of the introduction into chapters on photography and architecture; photography as a medium of expression; categories of architectural photography, and 'the word art'. From page 45 onwards is another 45 pages of straight technical instruction.

The Architectural Press should be rebuked for clothing this excellent book in a cheap-jack, inappropriate dust cover, which somehow includes a trumpet blowing out the author's name, which is perhaps the most important feature of the title, sideways and in small type. This should be changed if the book reaches, as it deserves, a 2nd edition.

E. J. C.



#### Serbian Legacy

By Cecil Stewart. 9½ in. 136 pp., illus. + 81 plates. G. Allen and Unwin, 1959. £2 2s.

Mr Stewart has now given us a sequel to his *Byzantine Legacy*, but whereas most of the buildings described in the earlier book were already familiar, the number and variety of the Serbian monastic churches of the 12th to 14th centuries will come as a revelation to many architects. Until recently these buildings have been neglected by British writers, but exhibitions of reproductions of the frescoes and Yugoslav tourist propaganda have focused attention on them and this book has caught the current interest. As the outcome of several years' study by an acknowledged expert on medieval architecture, it is likely to become the standard work on the subject and so fill a gap in architectural libraries.

The book is written in the form of a tour, and describes the architectural characteristics of the four main regions and most of the principal churches, with a short appreciation of the great frescoes they contain. These are intermingled with episodes of Serbian history and descriptions of the countryside; some continuity is inevitably lost by this treatment, but the sense of travelling under the author's guidance is created.

As all the churches described have been personally visited, some omissions must be expected, but it is a pity that these include such an important example as Sopocani.

There is a complete gazetteer in the appendix which summarises the information and will be most useful for those visiting the country.

The plates include excellent photographs, mostly by the author, and some impressive details of the frescoes from acknowledged sources, but more general interiors would have been welcomed; so would overall dimensions on the plans and sections which occur in the text, but the thumb-nail sketches are delightful. The size of the book has been kept small, presumably for the convenience of travellers, but the text is worthy of a library edition, complete with coloured photographs as colour forms such a vital part in the architecture of these buildings.

As a result of profound study and sensitive appreciation, the book captures and holds something of the mysterious atmosphere only found in the Greek and Serbian monasteries.

KATHLEEN GIBBONS [A]



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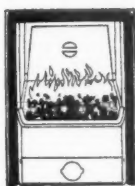
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## Four Solid Fuel Central Heating Systems



### 2/3 RADIATORS FROM AN OPEN FIRE

A modern open fire with a high output back-boiler will give lots of hot water, heat a radiator, say, in the living room or hall, another in the bedroom, and a towel rail in the bathroom (with a warm living room thrown in). This is comfort! And very economical.



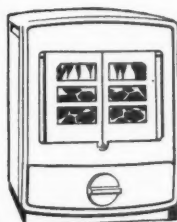
### BACKGROUND CENTRAL HEATING FROM AN INDEPENDENT BOILER

Another way of getting a warm house, with three or four radiators placed just where they are wanted and as much hot water as is needed, is to fit one of the new independent boilers with thermostatic controls.



### FULL LUXURY CENTRAL HEATING

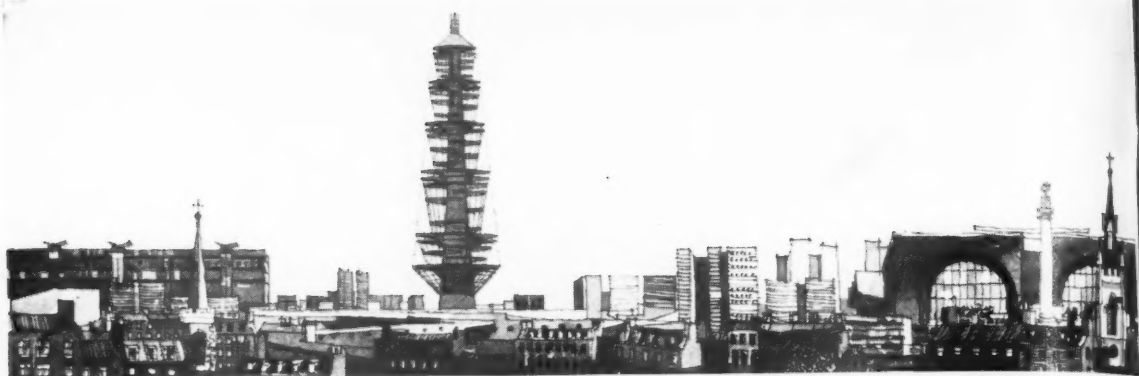
For full central heating with the luxury of radiators in every room, solid fuel is the cheapest of all systems to run. The new central heating boilers are very streamlined and labour-saving and can heat anything from six to twenty radiators and provide constant hot water too.



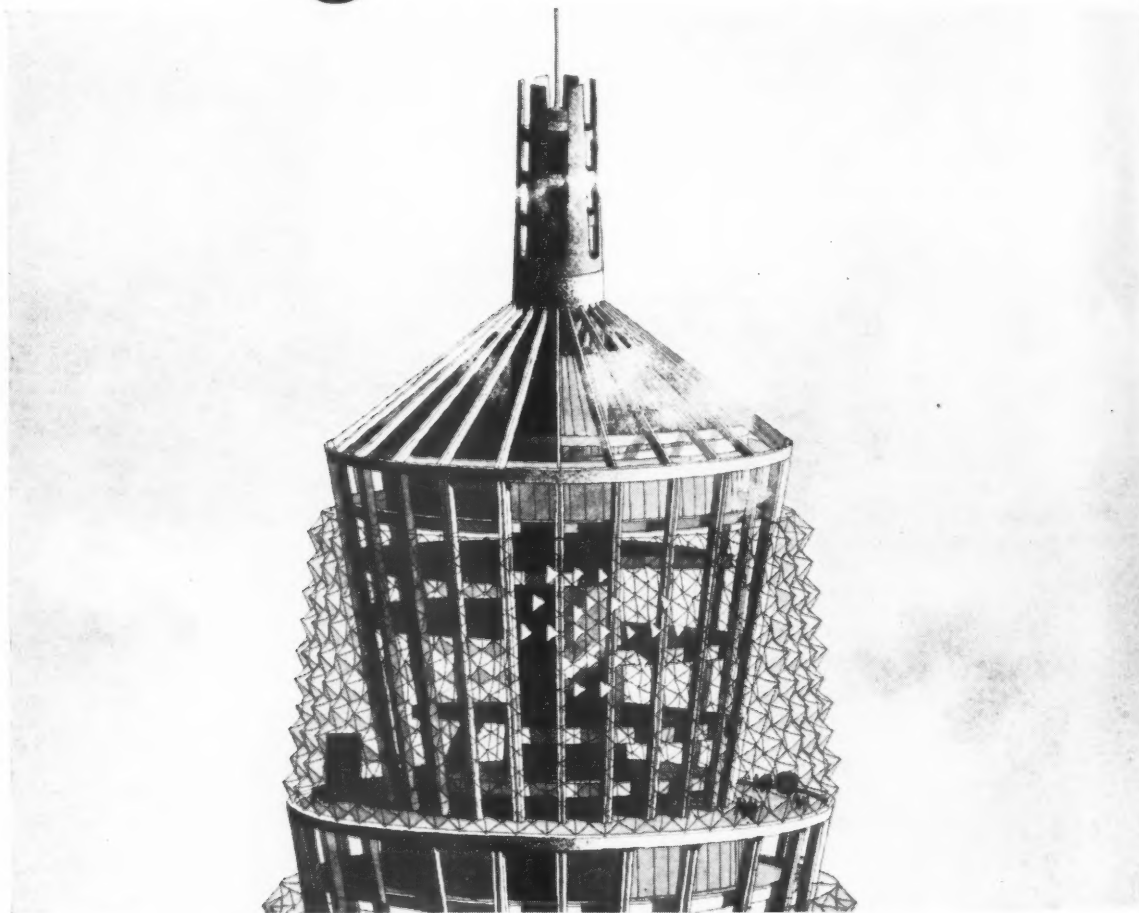
### ROOM HEATERS CAN ALSO HEAT RADIATORS

When there is an existing hot water system and a large living room to heat, it is a good plan to install a modern room heater with back boiler. This will give efficient and very economical heating of the room in which it is installed, plus heating for, say, two or three radiators in cold spots in the house, independently of the hot water system.

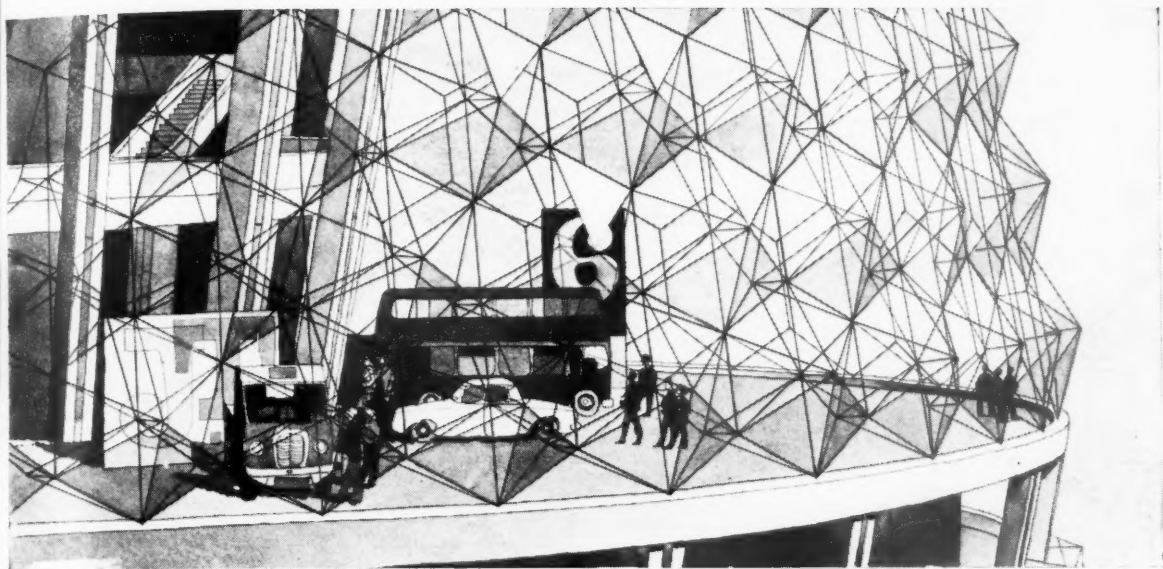




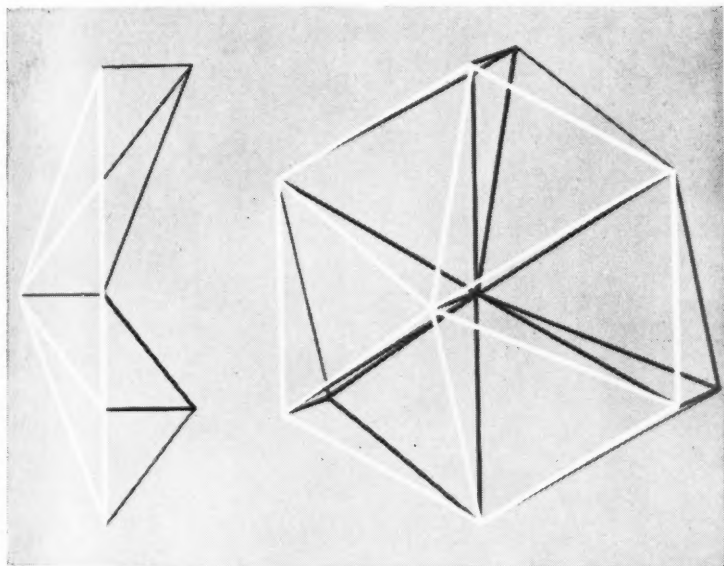
# Crystal 61







A view of one of the exhibition halls showing the effect of the faceted glazing.



In erection, the triangular units would be accurately welded up on jigs on the ground, and then assembled in position. The glazing technique would use neoprene compression glazing strips—of the type used for car windows—to fix the glass.



**PILKINGTON BROTHERS LIMITED, ST. HELENS, LANCASHIRE**

## The Glazing

Crystal 61 is completely enveloped in glass which covers and protects the tubular steel space-frame supporting it. This space-frame carries the glazing in a clear span from the top to the bottom of each 'hall', a vertical distance of up to 176 feet. It is made up of braced hexagons, each consisting of three triangular units. The centre of each hexagon projects outwards, and alternate corners project inwards. The glass which covers it therefore has an interesting faceted surface.

From a distance the building will be completely translucent, and the main structure will show in silhouette. From within, a panorama of London is disclosed in every direction beyond the outer skin of the building.

Crystal 61 is a design for an exhibition building with 550,000 square feet of display space in five tiered halls, capable of accommodating 100,000 visitors a day. By soaring 1,000 feet out of its surroundings it would provide its own advertisement. Crystal 61 was conceived by Mr. Ove Arup and Mr. G. A. Jellicoe, with John Martin of Ove Arup and Partners, Civil Engineers, and Hal Moggridge of Jellicoe, Ballantyne and Coleridge, F.R.I.B.A., under the auspices of the Glass Age Development Committee, which is convened by Pilkington Brothers Limited and consists of Mr. G. A. Jellicoe, C.B.E., F.R.I.B.A., Mr. Edward D. Mills, C.B.E., F.R.I.B.A. and Mr. Ove Arup, C.B.E., M.I.C.E.



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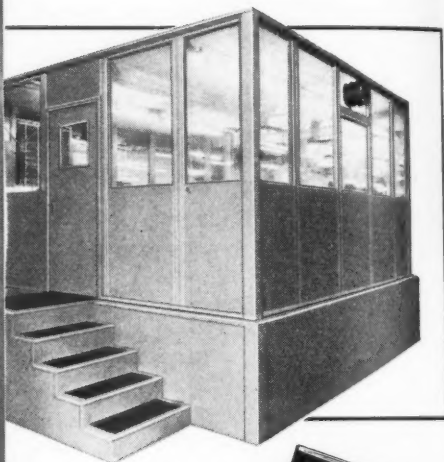
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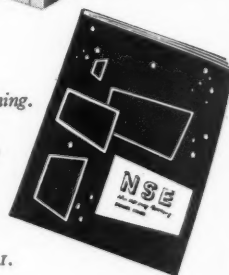
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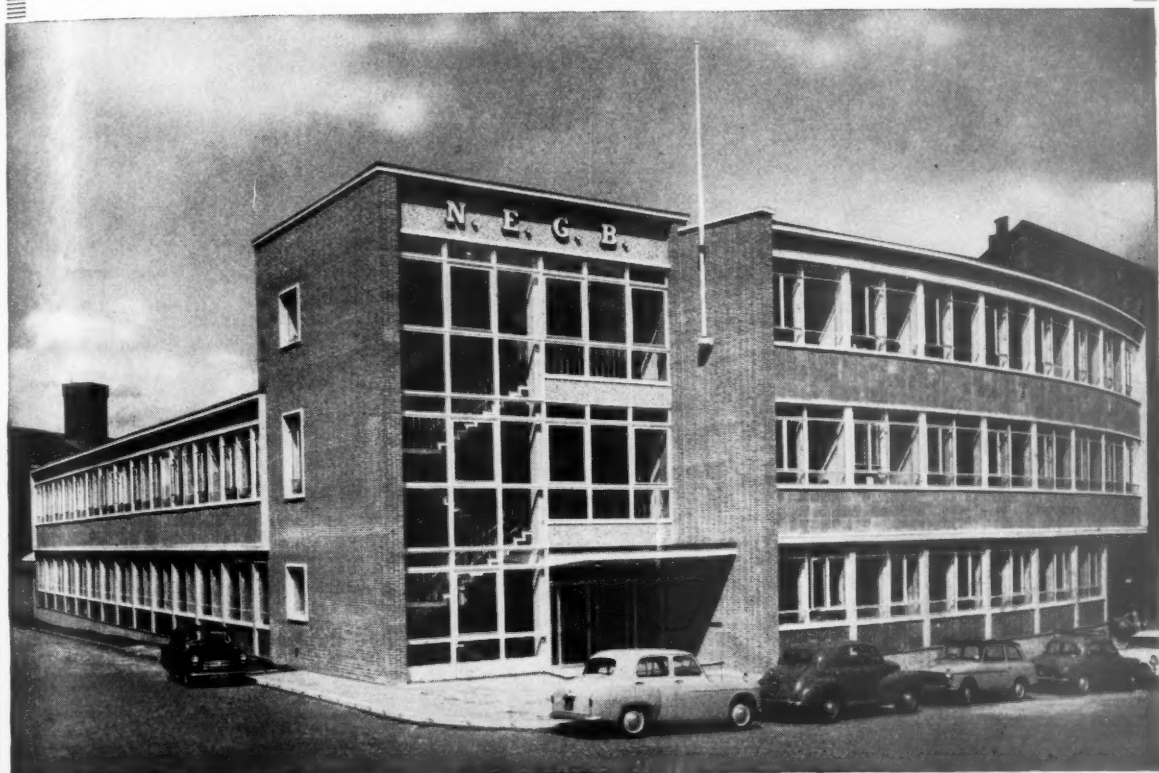
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# DESIGNS IN CONCRETE 11



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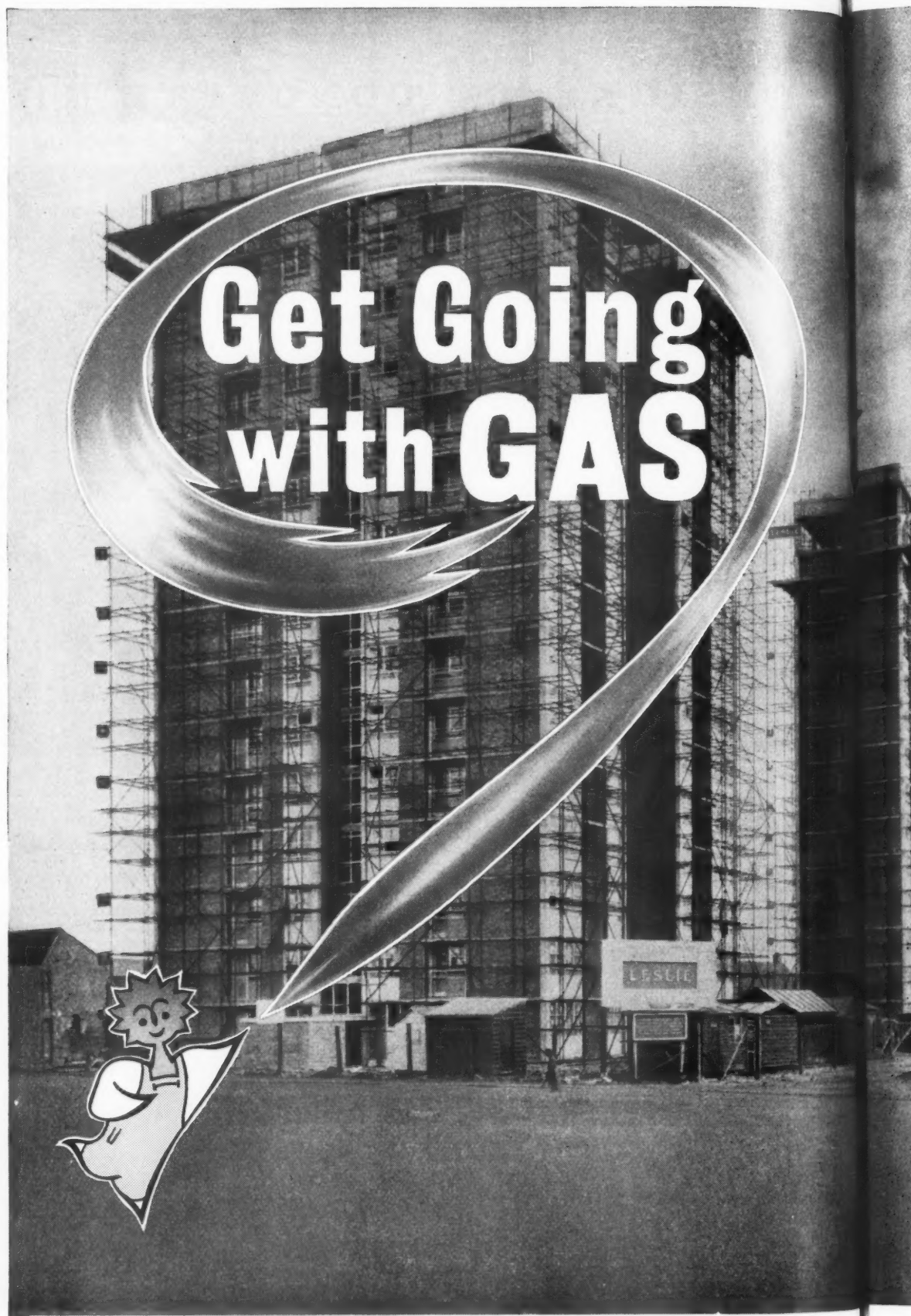
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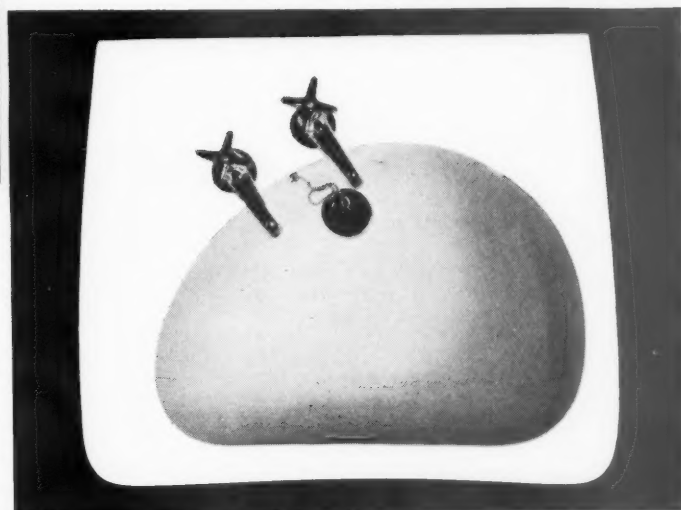
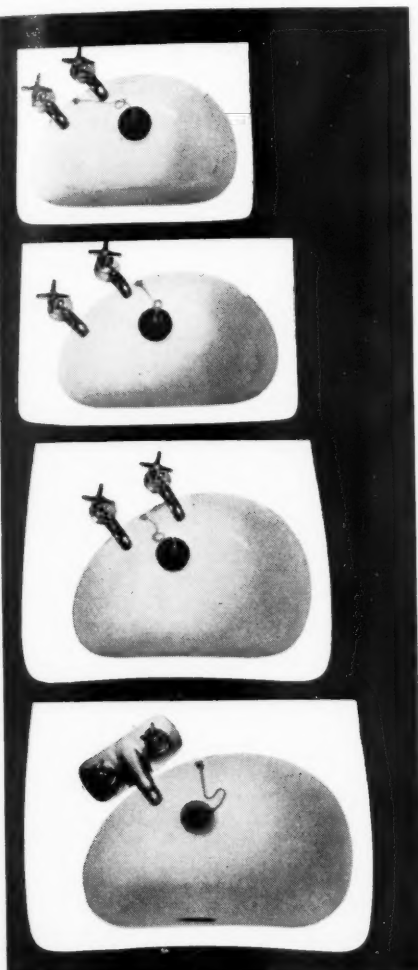
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20" × 16"

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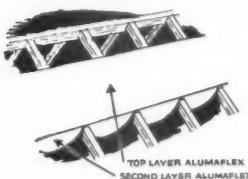
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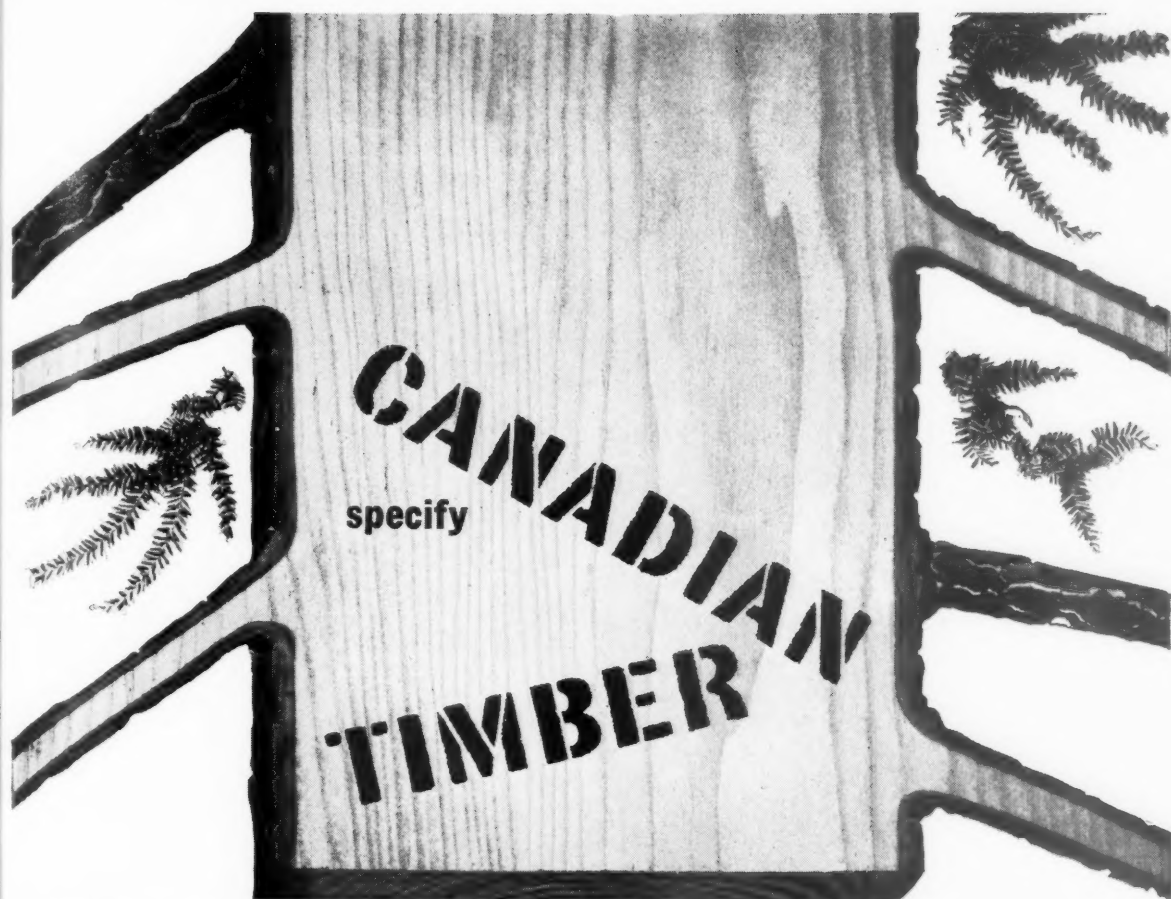
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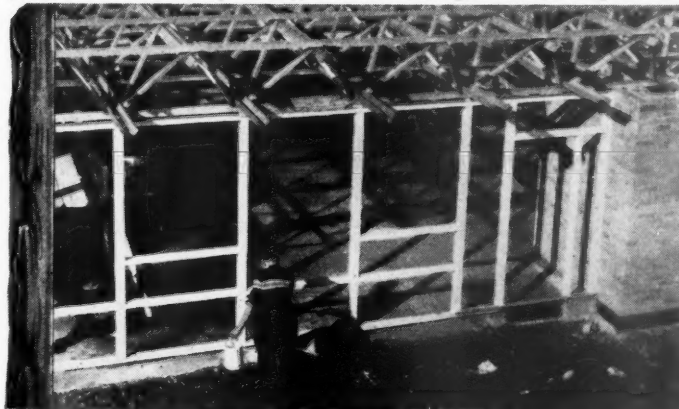




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*Swimming baths at Wythenshawe. Architect: Leonard C. Howitt, M. Arch., B.A. (Manch.), Dip. T.P., D.P.A., F.R.I.B.A., M.T.P.I., Ex-Manchester City Architect*

## All electric operation with floor warming makes good sense for swimming baths...

**Up-to-date** swimming baths, like the one erected by Manchester Corporation at Wythenshawe, must be designed to operate with maximum efficiency—and comfort. That is why the plans for this one are all electric and include a withdrawable floor warming system for all spectator accommodation, as well as for changing rooms, restaurant, etc. Every possible installation is electric, from the heating of the pool and the hot water supplies right down to photo-electric cells operating the showers.

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TECHNICAL DATA OF ELECTRICITY INSTALLATION	Connected load kW
Lighting	69
Motive power	67
General power, including electric kitchen	40
Space heating (floor warming)	201
Pools water heating, including plenum ventilating system and showers	720
	three 240 kW water heaters

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*Issued by the  
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**Mix:** 4:2:1 reinforced with No. 8 B.R.C. fabric and waterproofed with 16 lbs. 'Pudlo' cement waterproofer per cubic yard of 'SURECRETE' Ready-Mixed Concrete.

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Beer Cellar of the 'HARP' Parson's Mead. Croydon. By courtesy of Page and Overton's Brewery Ltd.



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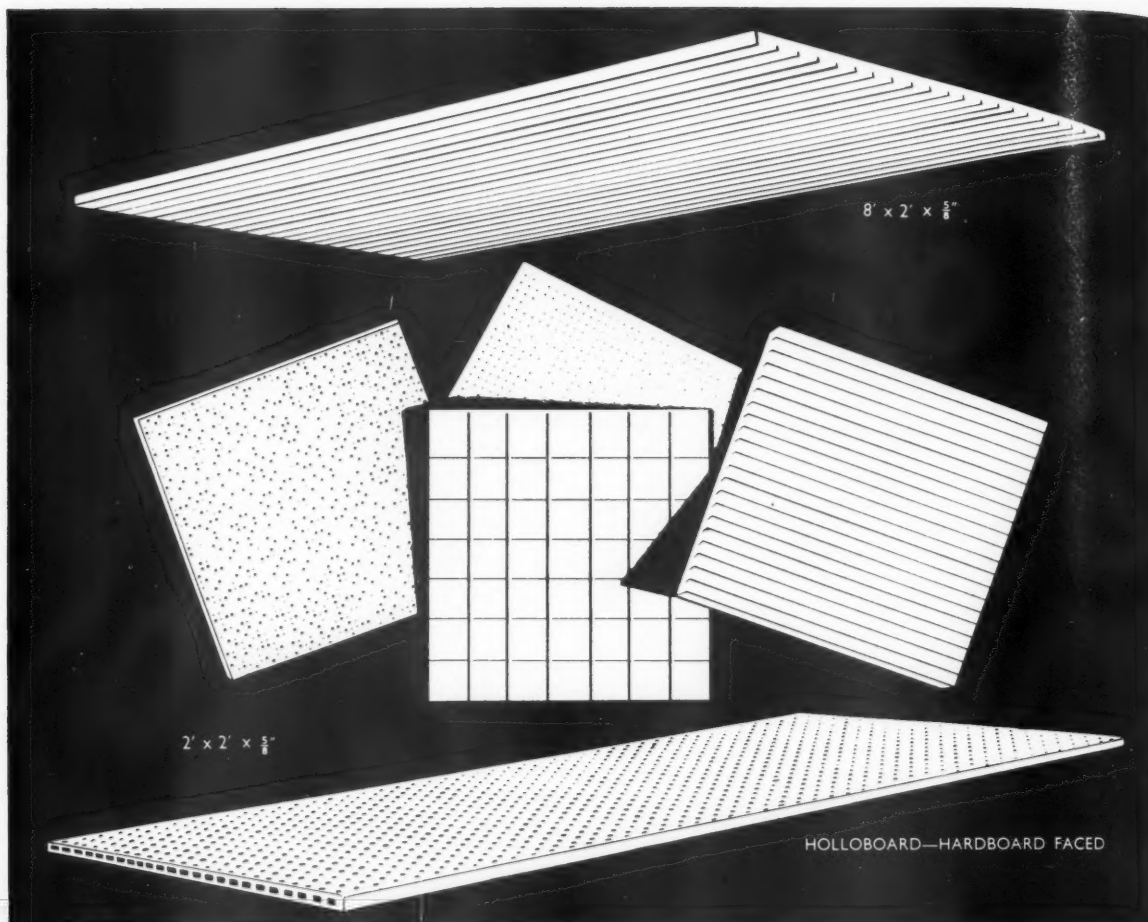
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A	.30	.45	.50	.55	.65	.80
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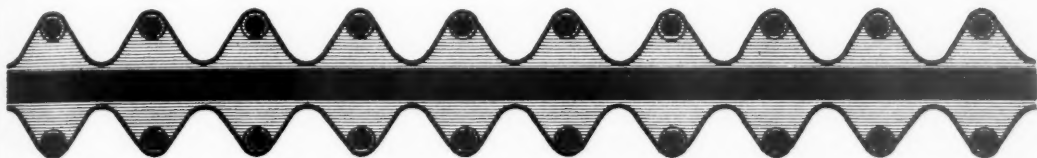
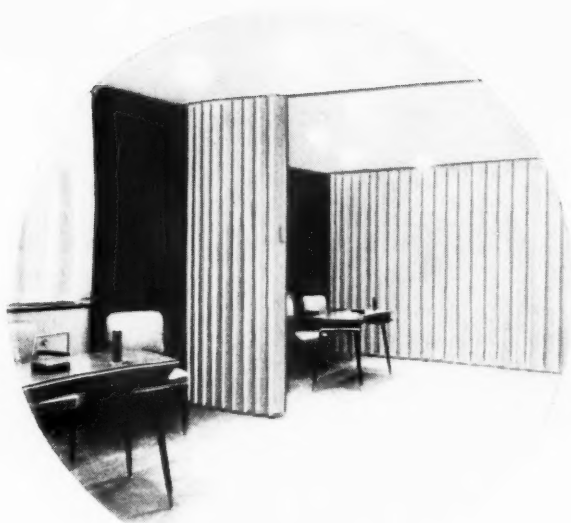


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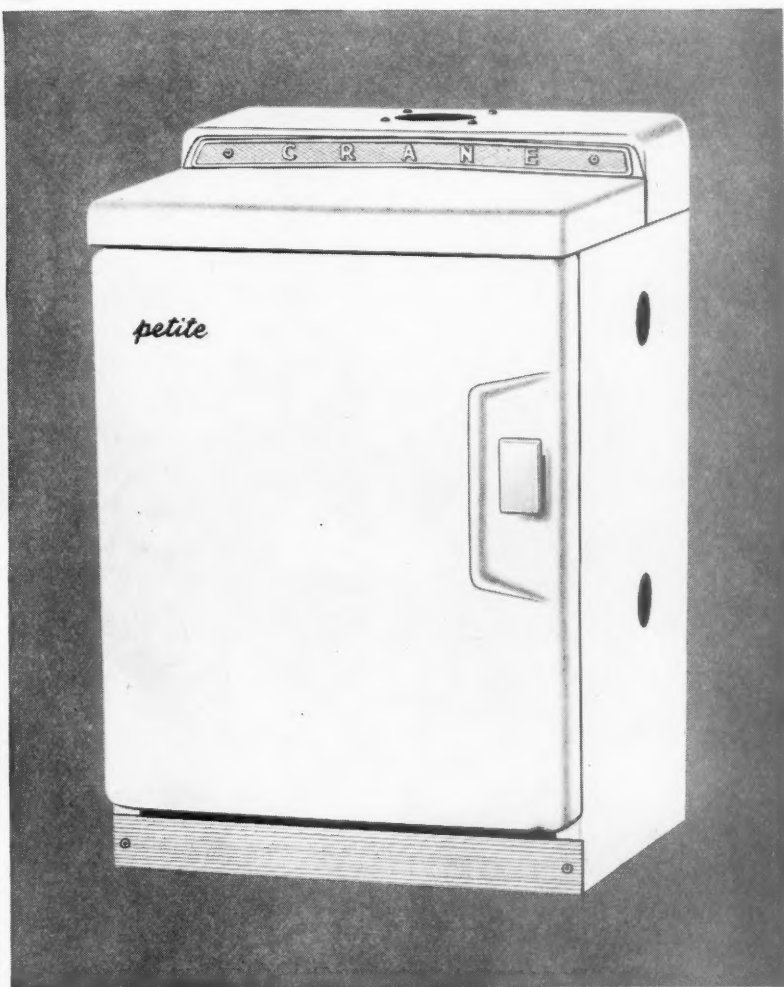
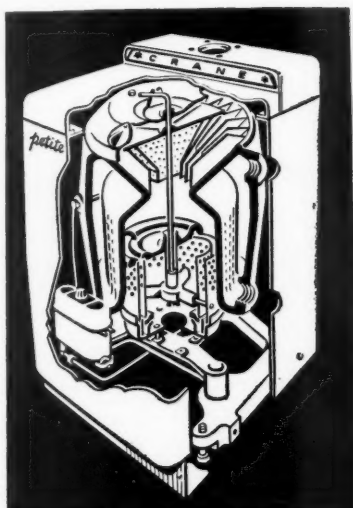
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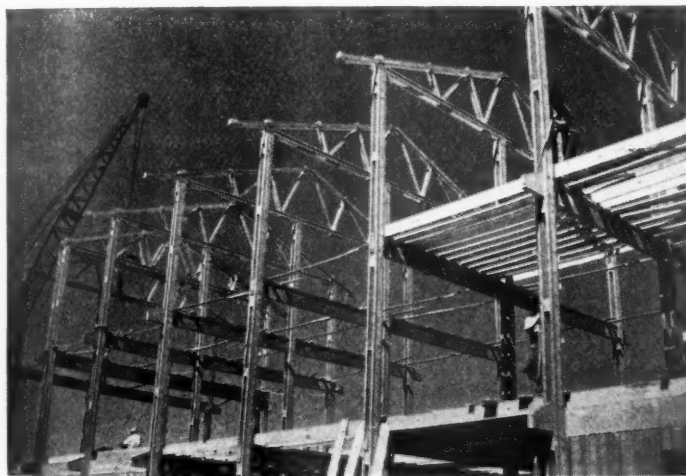
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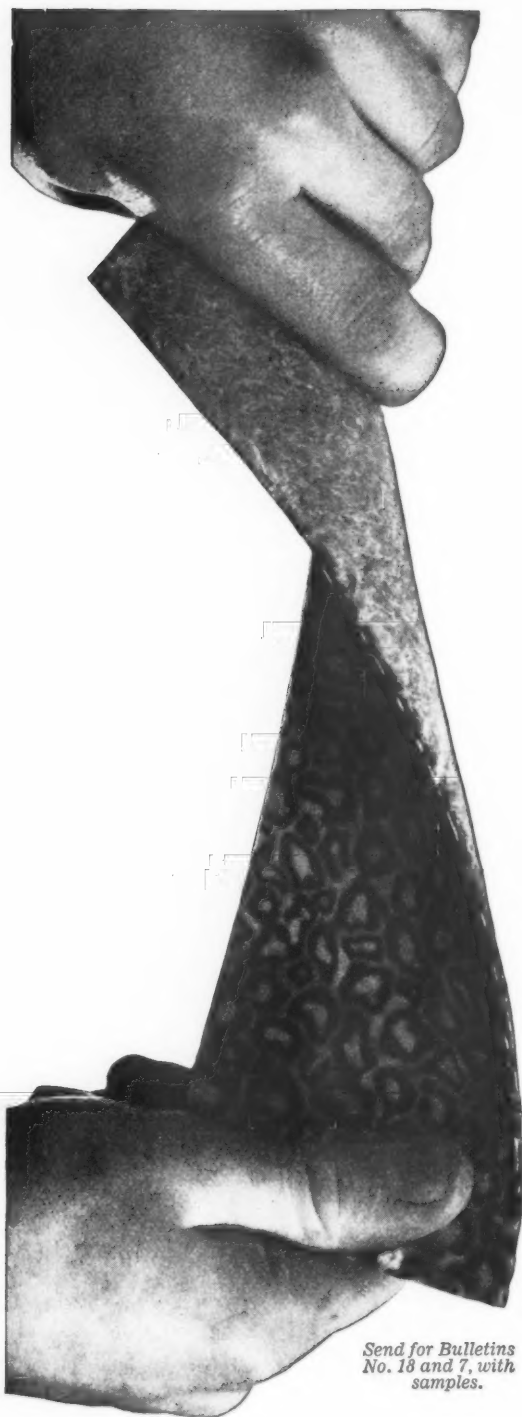
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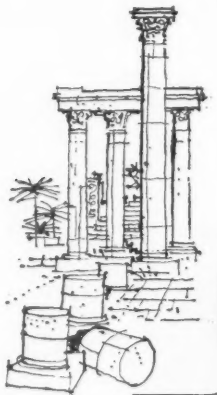
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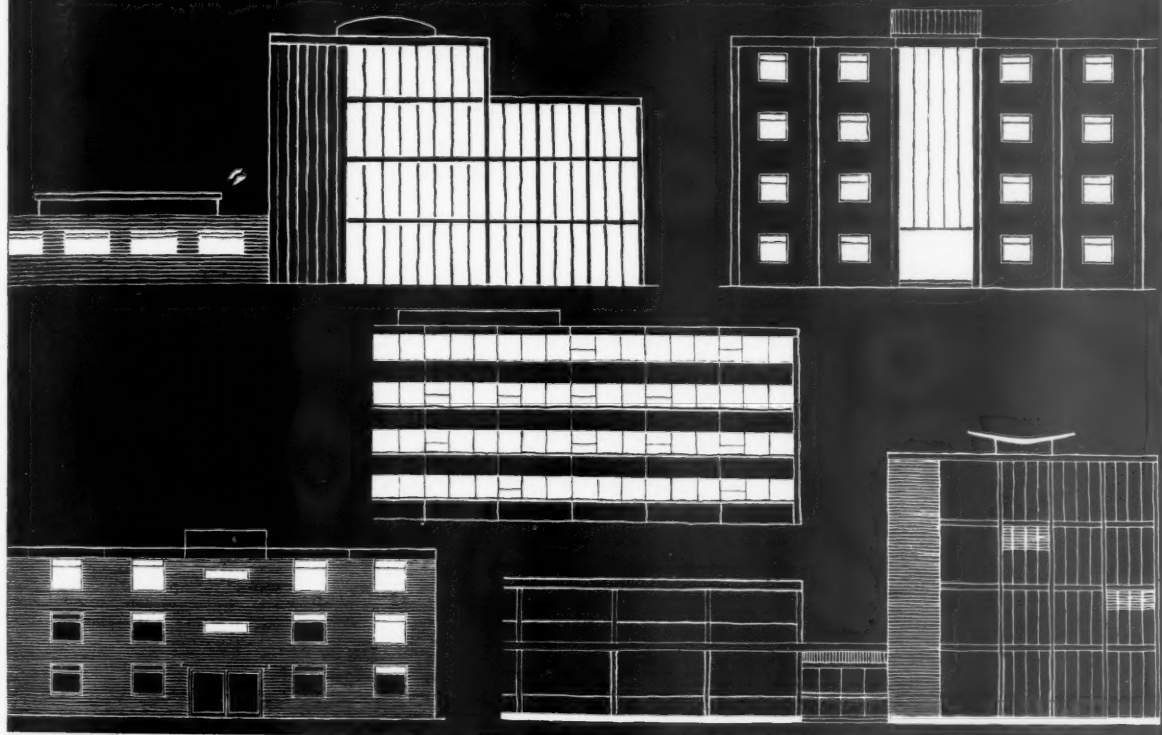
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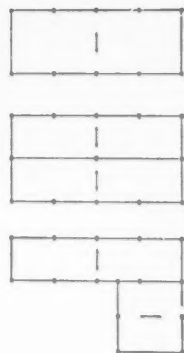
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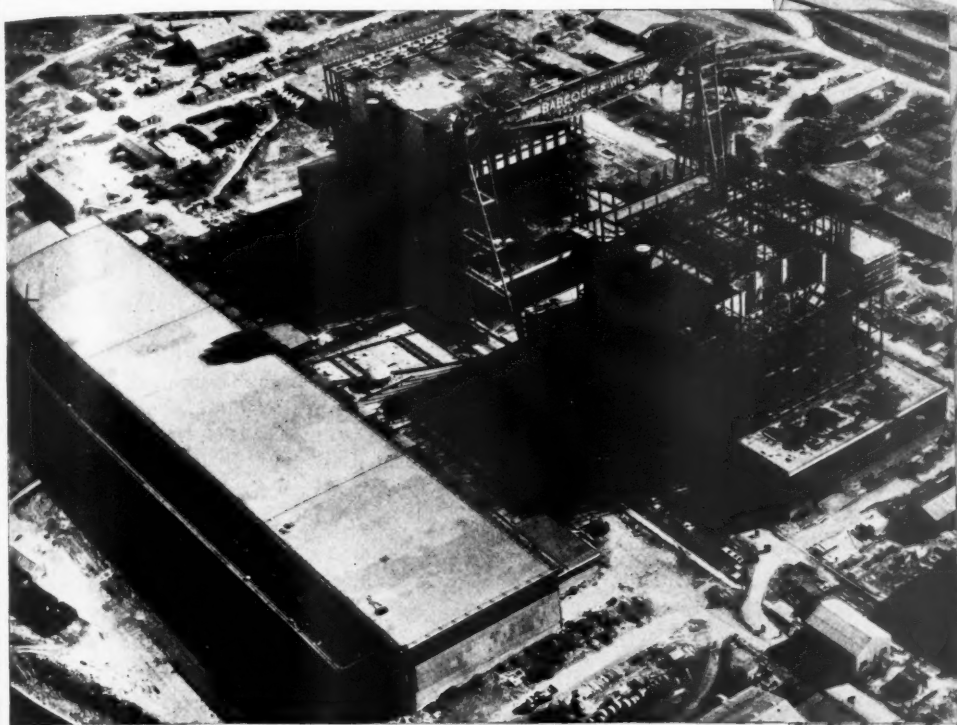
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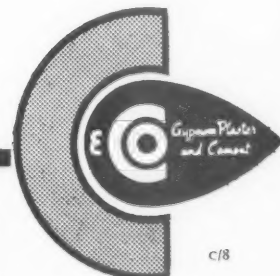
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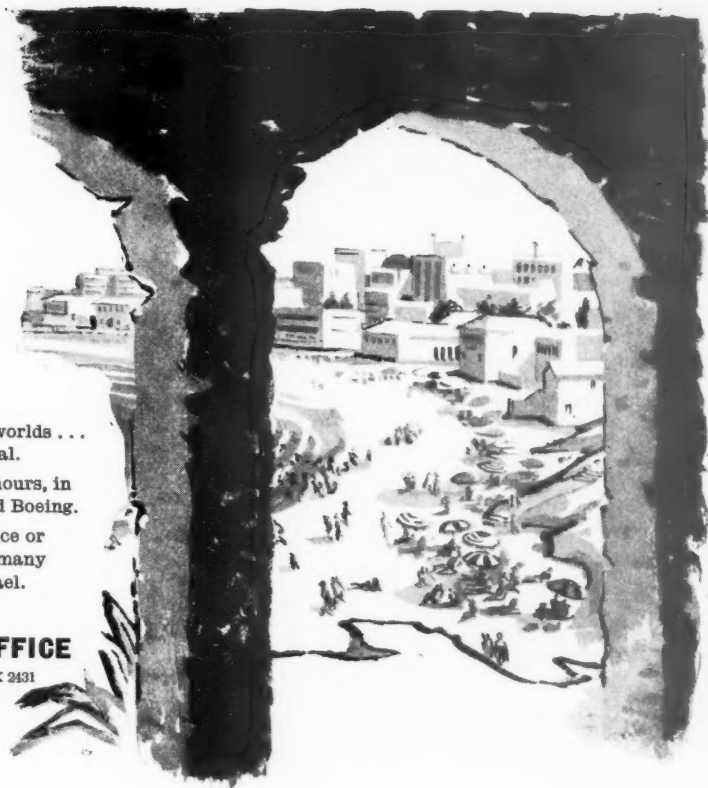
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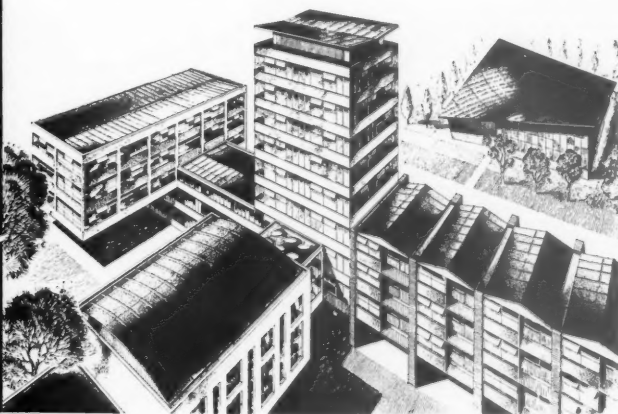


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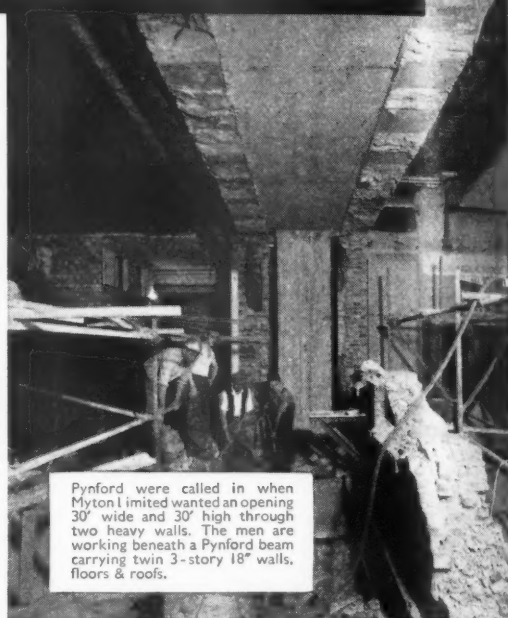
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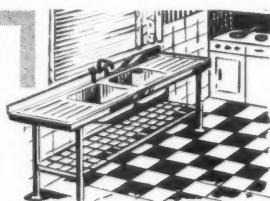
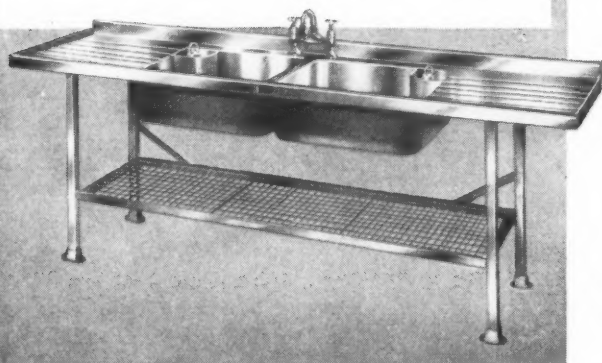
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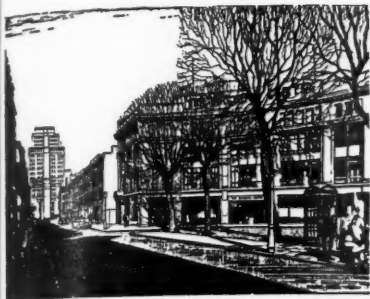
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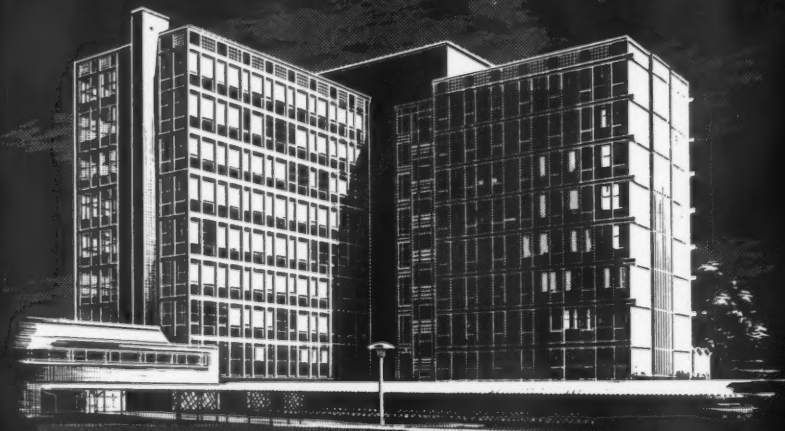
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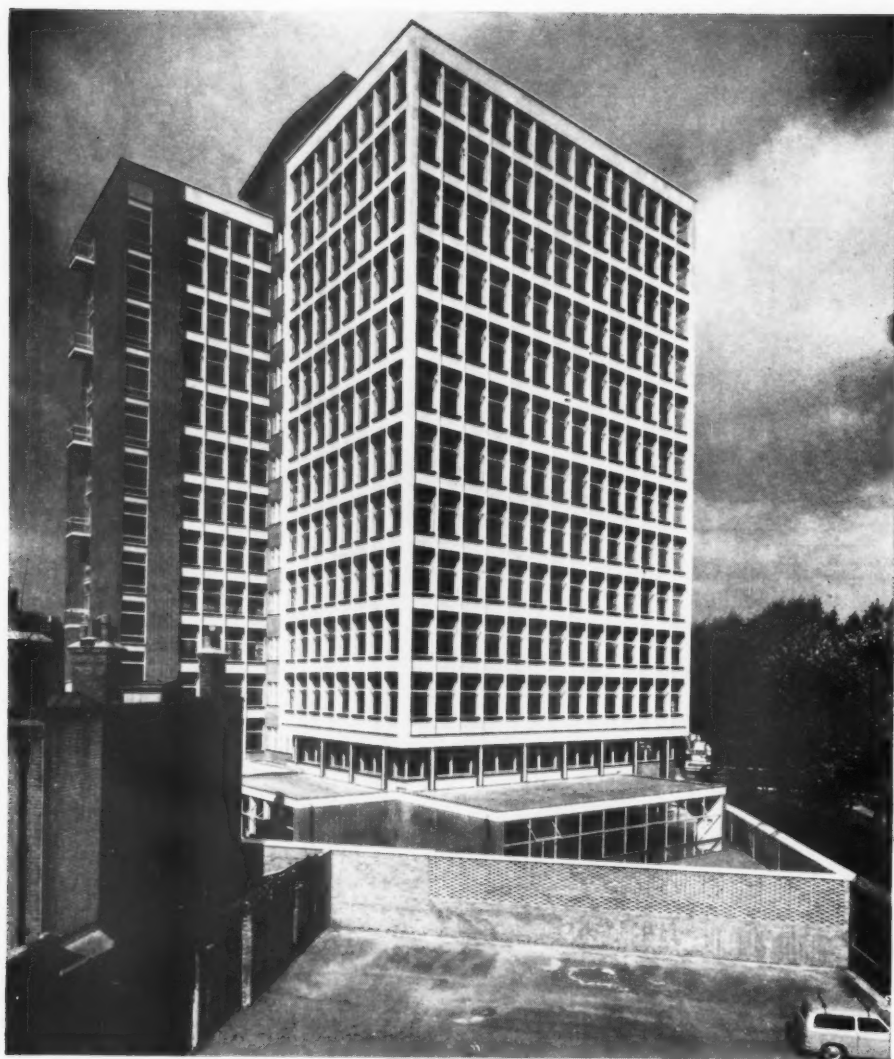
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